PHILIPS 29GX1896

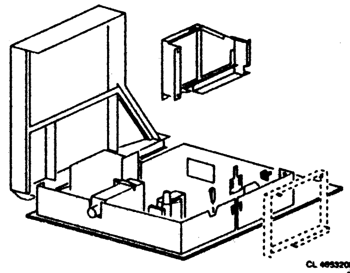
MODEL

SERVICE MANUAL

Colour television **Chassis**

Anubis S
BB

Service
Service
Service



Service Manual

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PHILIPS

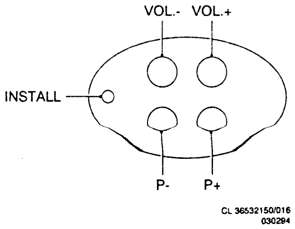
PCS 73 689 GB

1. Technical specifications

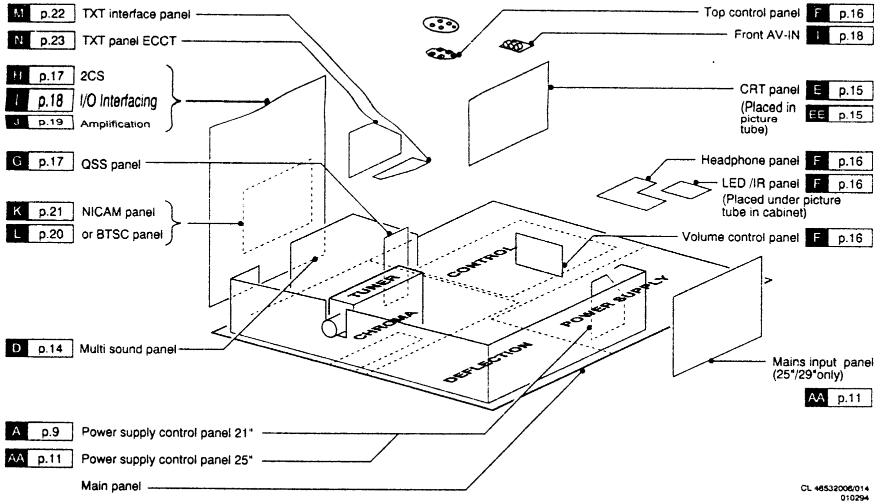
Mains voltage	: 140 - 276 V ; 50/60 Hz (± 5%)	
	: 90 - 276 V; 50/60 Hz (± 5%)	
Power cons. at 220V~	: 21" 64 W (stand-by ≤ 12 W)	
	: 25" 76 W (stand-by ≤ 14 W)	
Aerial input impedance TV	: 75Ω - coax	
Min. aerial input VHF	: 30µV	
Min. aerial input UHF	: 40µV	
Max. aerial input VHF/UHF	: ≥ 180mV	
Pull-in range colour sync	: ± 300Hz (NTSC 3.58: ± 250Hz)	
Pull-in range horizontal sync	: ± 600Hz	
Pull-in range vertical sync	: ± 5Hz	
Picture tube range	: 21" A51 KXR 95X	Narrow neck Global Hemisphere
	: 25" A59 LAM 93X01	Narrow neck Northern Hemisphere
	: 25" A59 LAM 94X01	Narrow neck Neutral Hemisphere
	: 25" A59 LAM 95X01	Narrow neck Soutern Hemisphere
🔈	: 2x2W squeeters 25Ω + 1x4W subwoofer 16Ω; 20Hz-14kHz	
TV Systems	: /65/67/68/79/94:	PAL B/G (NTSC 4.43 PB optional)
	: /75:	PAL B/H (NTSC 4.43 PB optional)
	: /56/57/69/70/93:	PAL B/G/I & SECAM B/G/D/K & NTSC M (NTSC 4.43 PB optional)
	: /58/59/62:	PAL B/G & SECAM B/G/D/K (NTSC 4.43 PB optional)
	: /54:	PAL M/N & NTSC M
	: /71/85:	NTSC M
	: /78:	PAL M
Indications	: On Screen Display (OSD)	
	: 1 LED (⏻ green, ⏻ red, "RC5" orange)	
VCR programs	: 0 and 39	
Tuning and operating system	: ▭ VST/PLL	
UV 913/IEC (VST)	: Band I:	48.25 - 82.25 MHz
	: Band III:	163.25 - 224.25 MHz
	: UHF:	471.25 - 855.25 MHz
UV 915E/IEC (VST)	: Band I:	48.25 - 168.25 MHz
	: Band III:	175.25 - 447.25 MHz
	: UHF:	455.25 - 855.25 MHz
UV 936E/F & UV 936E/IEC (PLL)	: Band I:	55.25 - 157.25 MHz
	: Band III:	162.00 - 451.25 MHz
	: UHF:	457.25 - 801.25 MHz
UV 953/IEC (VST)	: Band I:	48.25 - 93.25 MHz
	: Band III:	168.25 - 224.25 MHz
	: UHF:	471.25 - 863.25 MHz
UV 963/IEC (VST)	: Band I:	46.25 - 102.25 MHz
	: Band III:	138.25 - 224.25 MHz
	: UHF:	471.25 - 855.25 MHz
Local operating functions	: Volume +/-, Program +/-, Install	

2. Connection facilities

Rear cinch AV IN	: ◎ 1 x cinch CVBS →○ $1V_{pp}$ / 75Ω
	: ◎ 2 x cinch Audio L & R →○ 500mV RMS / 47kΩ
Rear cinch AV OUT	: ◎ 1 x cinch CVBS ○→ $1V_{pp}$ / 75Ω
	: ◎ 2 x cinch Audio L & R ○→ 500mV RMS / 47kΩ
Rear SVHS	: Y $1V_{pp}$ / 75Ω
	: C $1V_{pp}$ / 75Ω
Rear SCART (for /62)	*: 1 x CVBS →○ $1V_{pp}$ / 75Ω*
	: 2 x Audio L & R →○ 500mV RMS / 47kΩ
	: 1 x CVBS ○→ $1V_{pp}$ / 75Ω
	: 2 x Audio L & R ○→ 500mV RMS / 47kΩ
Front cinch AV IN (optional)	: ◎ 1 x cinch CVBS ○→ $1V_{pp}$ / 75Ω
	: ◎ 2 x cinch Audio L & R ○→ 500mV RMS / 47kΩ
Front headphone	: 🎧 8-600Ω; 10mW



PWB location drawing



3. Warnings and notes

Warnings

1. A set to be repaired should always be connected to the mains via a suitable isolating transformer.

2. Safety regulations demand that the set be restored to its original condition and that components identical with the original types be used. Safety components are marked by the symbol ⚠.

3. To prevent damage to ICs and transistors any flash-over of the EHT should be avoided.
   To prevent damage to the picture tube the method, indicated in Fig. 3.1, has to be applied to discharge the picture tube. Make use of an EHT probe and a universal meter (position DC-V). Discharge until the reading of the meter is 0V (after approx. 30s).

4. **ESD** ⚠

   All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair may reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools on the same potential.

5. The deflection and multipole unit is delivered separately of the picture tube; it has to be adjusted by the service technician (see chapter 7).

6. Proceed with care when testing the EHT section and the picture tube.

7. Never replace any modules or any other parts while the set is switched on.

8. Wear safety goggles during replacement of the picture tube.

9. Use plastic instead of metal alignment tools.
   This in order to preclude short-circuit or to prevent a specific circuit from being rendered unstable.

10. Upon a repair of a transistor or IC assembly i.e. a transistor or IC with heatsink and spring remounting should be carried out in the following order:
    1. Mount transistor or IC on heatsink with spring.
    2. Mount assembly and resolder the joints at last.

Notes

1. Do not use heatsinks as earth reference.

2. The direct voltages and waveforms should be measured relative to the nearest earthing point on the printed circuit board.

3. The DC voltages and oscillograms are where necessary measured with (┓┏) and without (⚹) aerial signal. (settings as in Service Default Mode; see chapter 8). Voltages and oscillograms in the power supply section have been measured for both normal operation (⏀) and in the stand-by mode (⏻). As an input signal a colour bar pattern has been used.

4. Connectors used for the modules (board to board) are gold-plated and must be replaced by the same type only.

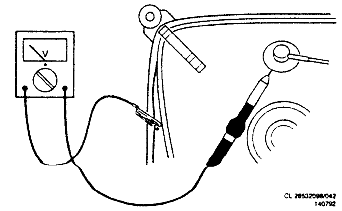


Fig. 3.1

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4. Mechanical instructions

General

All panels are plugged for easy (dis)connecting and can be removed without damaging the circuitry.

For **video related faultfinding** the main carrier can be disconnected from the TXT panel and the 2CS+I/O+AMPL panel as the set will automatically switch to internal CVBS (except for SECAM chroma which signal path is via the 2CS+I/O+AMPL panel). Of course for CVBS I/O faultfinding the 2CS+I/O+AMPL panel should be connected to the main carrier.

For **audio related faultfinding** first measure pin 1 IC7225-6F (AUDIO_OUT LF audio signal inclusive BTSC and NICAM info) and TP 42 and 43 at resp pin 5 and 3 of connector Q4 (AF1 and AF2):
* If all OK, the fault is on the 2CS+I/O+AMPL or NICAM or BTSC panel
* If not all OK, the fault is on the main carrier (QSS or IC7225-6F

Service position MAIN CARRIER

For the main carrier panel with the plugged panels on it there two service positions are possible:

A: For faultfinding on the component side of the main carrier

B: For (de)soldering activities on the copper side of the main carrier

Position A can be reached by first shifting out the mains cord fixation block, then loosen the carrier lips (1) and then pulling the carrier panel (2) for approximately 10 cm (all cables to all other panels in the TV can be remained connected).

Position B can be reached from position A by disconnecting all cables to the TXT and the 2CS+I/O+AMPL panel and the degaussing cable. Put the carrier on the line transformer side.

Service position 2CS+I/O+AMPL panel and NICAM/BTSC panel

The entire bracket with both the 2CS+I/O+AMPL panel and the NICAM/BTSC panel can be shifted out of the cabinet by pulling backwards the entire bracket (3). By then the bracket with all panels in it can be laid on it's left side (seen from the back) while still connected to the main carrier.

Also both panels can be easily clicked out of the bracket. The 2CS+I/O+AMPL panel can be shifted backwards after releasing one catching finger on the top part of the bracket. The NICAM or BTSC panel can be released by pulling upwards the middle part of the bracket a little.

Service position MAINS INPUT panel (25" only)

The entire bracket can be shifted out of the cabinet by pulling backwards the entire bracket (4). By then the bracket with the mains input panel in it can be laid on it's left side (seen from the back) while still connected to the main carrier.

Also the mains input panel can easily be clicked out of it's bracket by releasing the 2 catching fingers on the top part of the bracket.

Service position TXT and TXT INTERFACE panel

The entire bracket can be shifted out of the cabinet by lifting the release finger at the bottom side of the bracket with a screwdriver and then pulling backwards the entire bracket (5). By then the bracket with the TXT and TXT interface panel in it can be laid on the left side (seen from the back) while still connected to the main carrier.

Also the TXT and the TXT interface panel can be easily clicked out of the panel by releasing the 2 catching fingers on the top and the back part of the bracket.

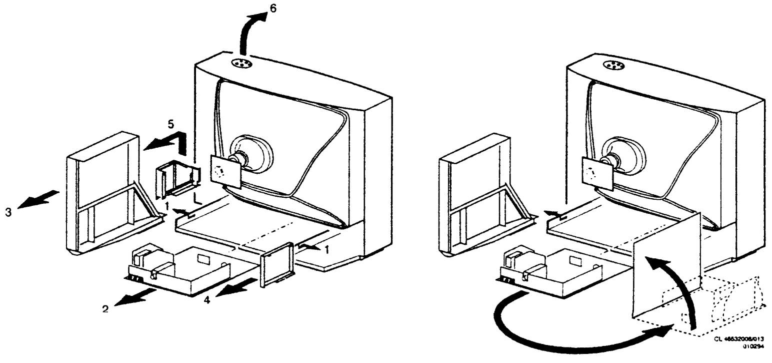
Service position TOP CONTROL panel

The top control panel can be taken out of the cabinet by first smoothly releasing the click fit on the left under side of the top control bracket (seen from the back) with a small plier. By then "turn" out the bracket with the panel out of the cabinet (6).

Service position LED + IR panel and HEADPHONE panel

First pull out the main carrier. Then srew out the 2 fixation screws of the LED +IR and headphone bracket. By then pull backwards the bracket with the extended handgrip.

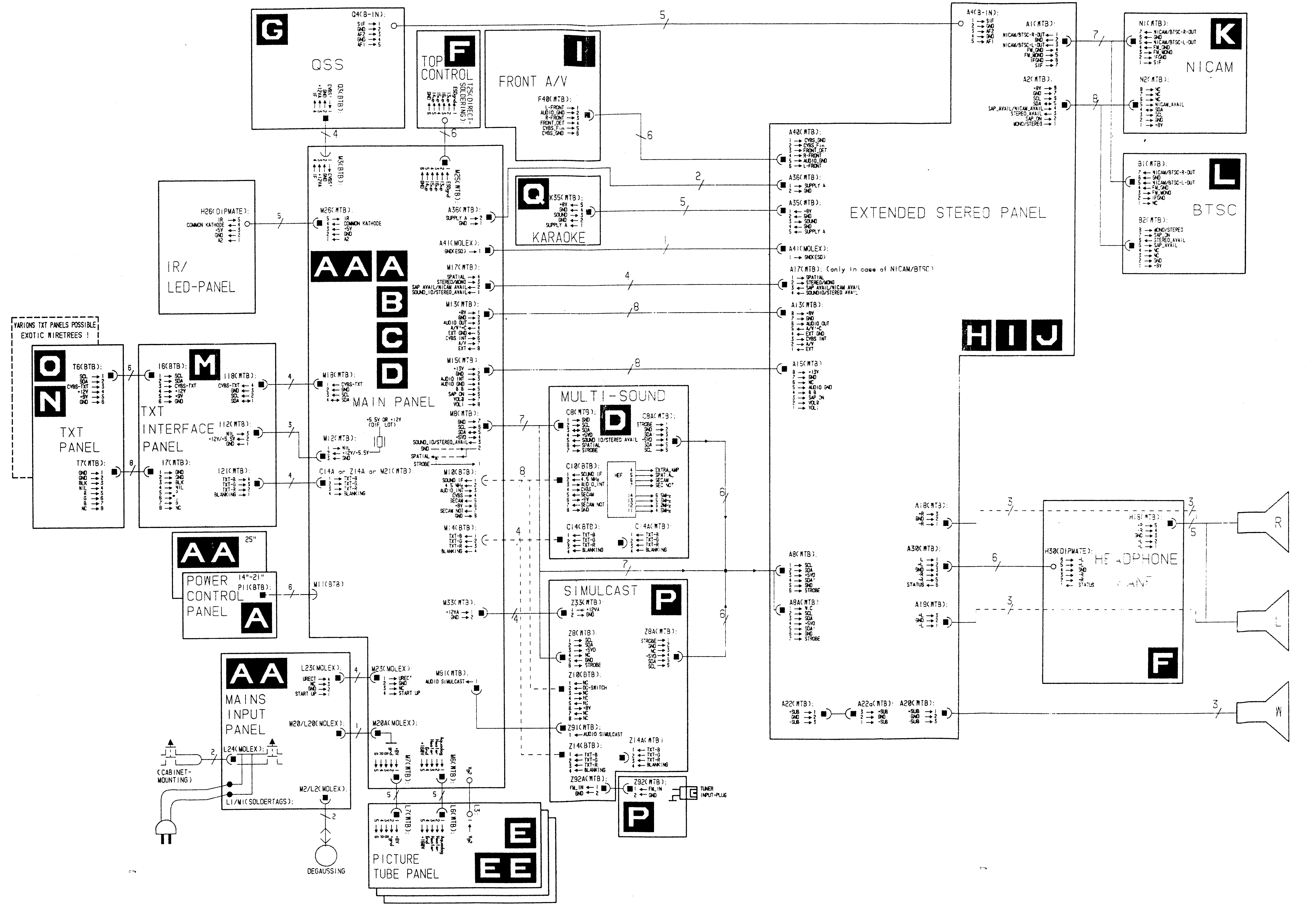
Also the LED + IR panel and the HEADPHONE panel can be easily clicked out of it's bracket by releasing the clicks.



A

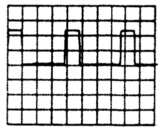
B

5. Wiring diagram / Esquema del circuito eléctrico


G
QSS
Q4(B-IN):
Q3(DTB):
F
TOP CONTROL
I25(DIRECT-SOLDERING)
I
FRONT A/V
F40(MTB):
A4(B-IN):
A1(MTB):
A2(MTB):
K
NICAM
N1(MTB):
N2(MTB):
L
BTSC
B1(MTB):
B2(MTB):
IR/
LED-PANEL
H26(DIPMATE):
Q
K35(MTB):
KARAOKE
EXTENDED STEREO PANEL
A40(MTB):
A36(MTB):
A35(MTB):
A41(MOLEX):
A17(MTB): (only in case of NICAM/BTSC)
A13(MTB):
A15(MTB):
H I J
M3(BTB):
M25(MTB):
M26(MTB):
A36(MTB):
A41(MOLEX):
M17(MTB):
M13(MTB):
M15(MTB):
AA A
B
C
D
MAIN PANEL
YARIONS TXT PANELS POSSIBLE
EXOTIC MIRETREES !
O
N
TXT PANEL
T6(BTB):
T7(MTB):
M
TXT INTERFACE PANEL
I6(BTB):
I18(MTB):
I12(MTB):
I7(MTB):
I21(MTB):
M18(MTB):
M12(MTB):
C14A or Z14A or M21(MTB):
M8(MTB):
M10(BTB):
M14(BTB):
MULTI-SOUND
D
C8(MTB):
C8A(MTB):
C10(BTB):
C14(BTB):
C14A(MTB):
HEF
AA 25"
POWER CONTROL PANEL
14"-21"
P11(BTB):
A
M1(BTB)
M33(MTB):
SIMULCAST
P
Z33(MTB):
Z8(MTB):
Z8A(MTB):
Z10(BTB):
Z91(MTB):
Z14(BTB):
Z14A(MTB):
Z92A(MTB):
Z92(MTB):
TUNER INPUT-PLUG
P
AA
MAINS INPUT PANEL
L23(MOLEX):
M23(MOLEX):
M91(MTB):
M20/L20(MOLEX):
M20A(MOLEX):
L24(MOLEX):
(CABINET-MOUNTING)
L1/M1(SOLDERTAGS):
M2/L2(MOLEX):
M7(MTB):
M6(MTB):
Vg2
DEGAUSSING
L7(MTB):
L6(MTB):
L3:
E
PICTURE TUBE PANEL
E E
A18(MTB):
A30(MTB):
A19(MTB):
A8(MTB):
A8A(MTB):
H18(MTB):
H30(DIPMATE):
HEADPHONE PANEL
F
A22(MTB):
A22a(MTB):
A20(MTB):
R
L
W

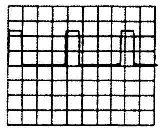
Overview oscillograms / Sumario de oscilogramas

TP1



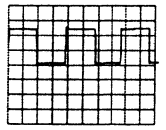
T=5us
Δv=2v

TP2



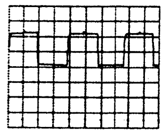
T=5us
Δv=2v

TP3



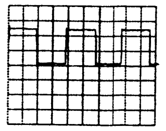
T=5us
Δv=2v

TP4



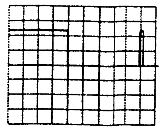
T=5us
Δv=2v

TP5



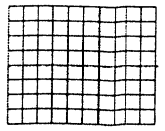
T=5us
Δv=2v

TP6



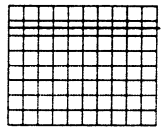
T=20ms
Δv=2v

TP7



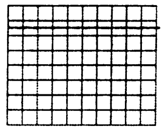
T=20ms
Δv=2v

TP8



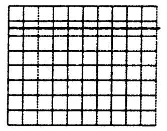
T=20ms
Δv=2v

TP9



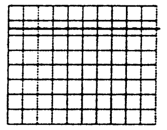
T=20ms
Δv=2v

TP10



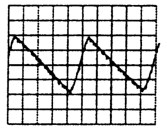
T=20ms
Δv=2v

TP11



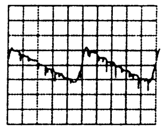
T=20ms
Δv=2v

TP12.21" ⏼



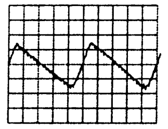
2V/div AC
2ms div

TP12.21" ⏻



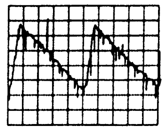
0,5V/div AC
2ms div

TP12.25" ⏼



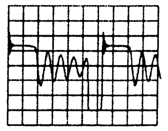
2V/div AC
2ms div

TP12.25" ⏻



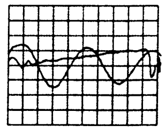
0,2V/div AC
2ms div

TP13.21" ⏼



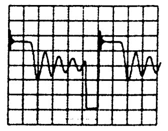
100V/div AC
5µs div

TP13.21" ⏻



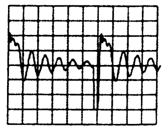
0,1V/div AC
1µs div

TP13.25" ⏼



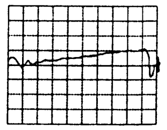
100V/div AC
5µs div

TP13.25" ⏻



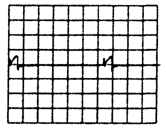
100V/div AC
5µs div

TP14.21" ⏼



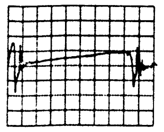
1V/div AC
0,5µs div

TP14.21" ⏻



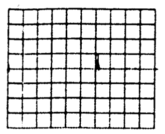
1V/div AC
5µs div

TP14.25" ⏼



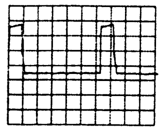
1V/div AC
0,5µs div

TP14.25" ⏻



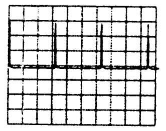
1V/div AC
0,5µs div

TP15.21" ⏼



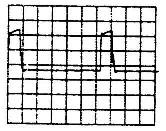
5V/div AC
5µs div

TP15.21" ⏻



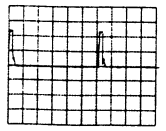
5V/div AC
10µs div

TP15.25" ⏼



5V/div AC
5µs div

TP15.25" ⏻



5V/div AC
5µs div

TP16.21" = DC 18V
⏼

TP16.21" = DC 17V5
⏻

TP16.25" = DC 14V8
⏼

TP16.25" = DC 14V5
⏻

TP17.21" = DC 2V5
⏼

TP17.21" = DC 2V5
⏻

TP17.25" = DC 2V5
⏼

TP17.25" = DC 2V5
⏻

TP18.21" = DC 6V
⏼

TP18.21" = DC 6V
⏻

TP18.25" = DC 5V1
⏼

TP18.25" = DC 5V1
⏻

TP19.21" = DC 13V
⏼

TP19.21" = DC 13V
⏻

TP19.25" = DC 14V7
⏼

TP19.25" = DC 14V5
⏻

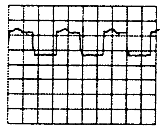
TP20.21" = DC 116V
⏼

TP20.21" = DC 122V
⏻

TP20.25" = DC 114V
⏼

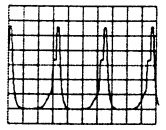
TP20.25" = DC 126V
⏻

TP21



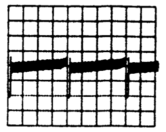
0,5V/div AC
20µs div

TP22



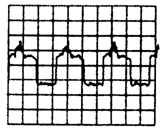
2V/div AC
20µs div

TP23



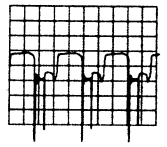
2V/div AC
5ms div

TP24



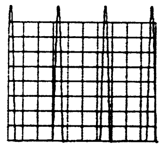
0,2V/div AC
20µs div

TP25



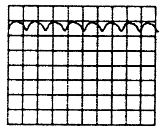
1V/div AC
20µs div

TP26



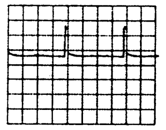
100V/div AC
20µs div

TP27



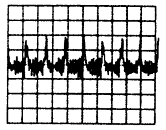
T=50us
Δv=5v

TP28



T=5ms
Δv=10v

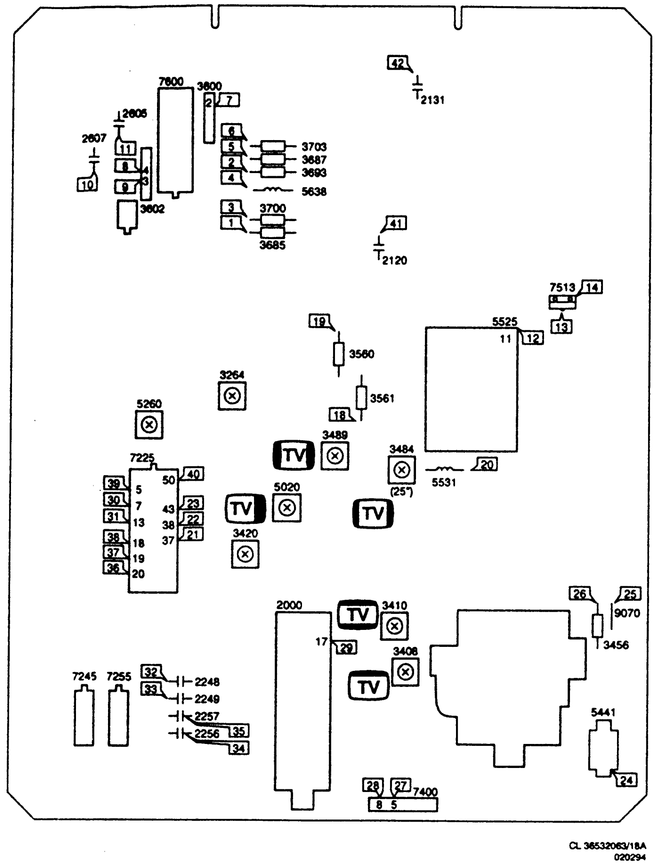
TP29



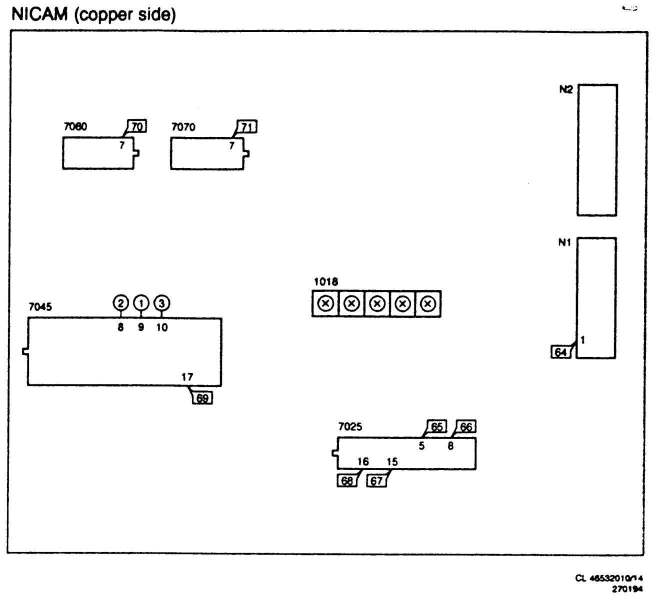
T=5ms
Δv=10v

Survey of testpoints / Puntos de prueba

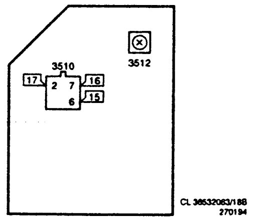
MAIN CARRIER (component side)


7600
3600
2605
2607
3602
3703
3687
3693
5638
3700
3685
2131
2120
7513
5525
3560
3561
3264
5260
3489
3484
5531
7225
5020
3420
2000
3410
3408
9070
3456
5441
7245
7255
2248
2249
2257
2256
7400
TV
CL 36532063/18A
020294

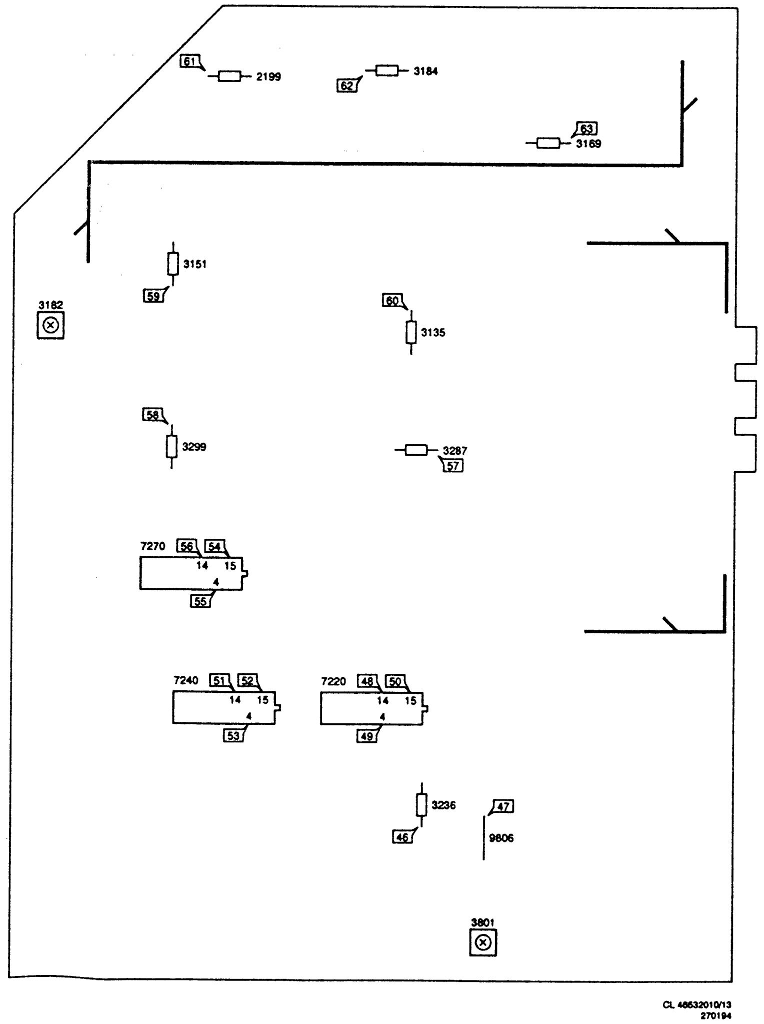
NICAM (copper side)


7060
7070
N2
N1
7045
1018
7025
CL 46532010/14
270194

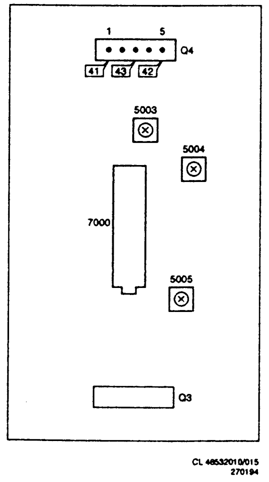
POWER SUPPLY
CONTOL PANEL

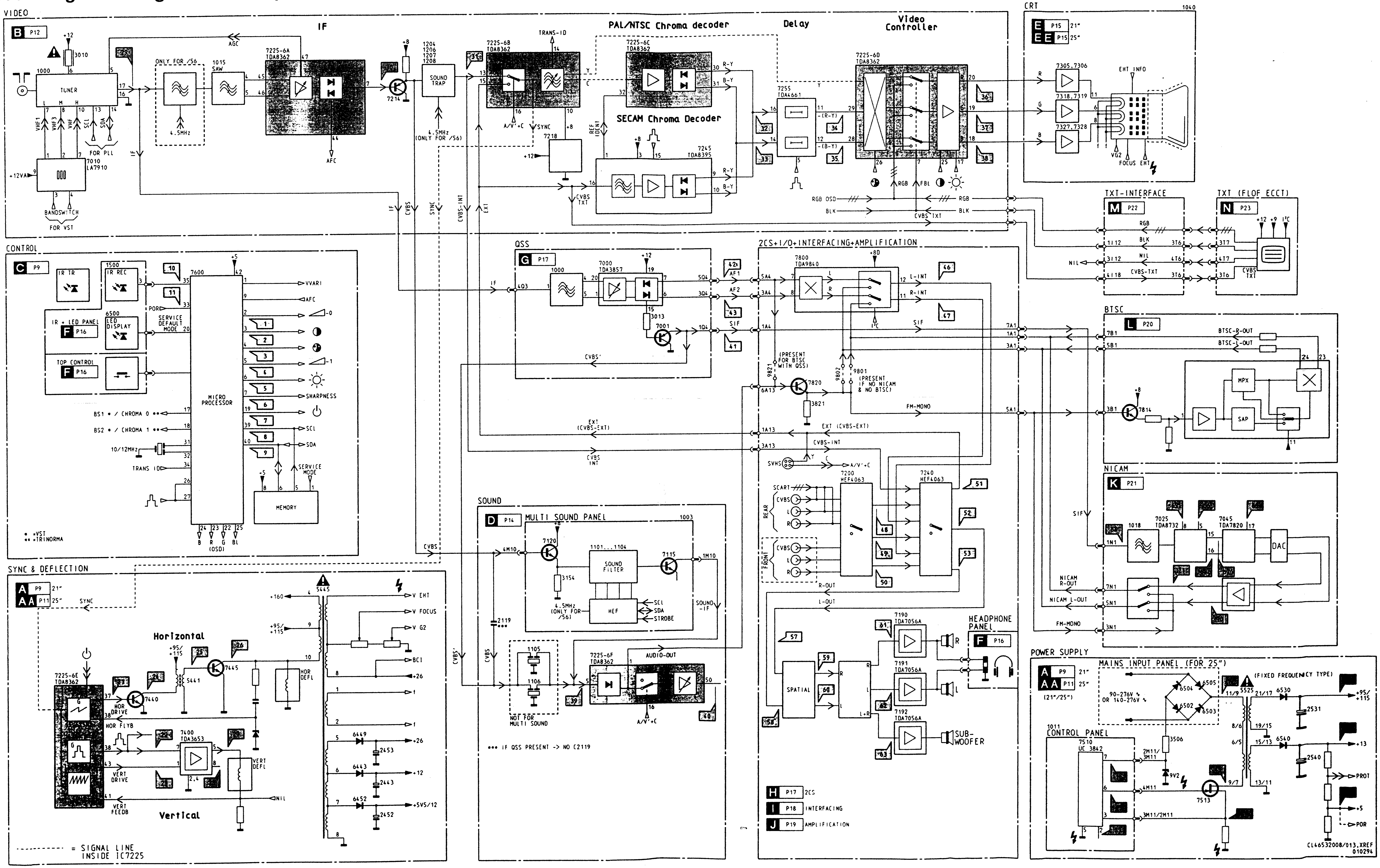

3510
3512
CL 36532063/18B
270194

2CS + I/O + amplification panel (copper side)


2199
3184
3169
3151
3182
3135
3299
3287
7270
7240
7220
3236
9606
3801
CL 46532010/13
270194

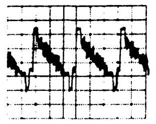
QSS (component side)


Q4
5003
5004
7000
5005
Q3
CL 46532010/015
270194


VIDEO
B P12
IF
PAL/NTSC Chroma decoder
Delay
Video Controller
SECAM Chroma Decoder
TUNER
1000
3010
ONLY FOR /56
1015 SAW
4.5MHz
7225-6A TDA8362
AGC
AFC
7214
SOUND TRAP
1204 1206 1207 1208
4.5MHz (ONLY FOR /56)
7225-6B TDA8362
TRANS-ID
A/V'+C
SYNC
7218
7225-6C TDA8362
7245 TDA8395
7255 TDA4661
7225-6D TDA8362
R-Y
B-Y
RGB OSD
BLK
CVBS TXT
RGB
FBL
7010 LA7910
+12VA
BANDSWITCH FOR VST
FOR PLL
VHF1 VHF3 VHF L M H SCL SDA
CRT
1040
E P15 21"
E E P15 25"
7305,7306
7318,7319
7327,7328
EHT INFO
VG2
FOCUS
EHT
TXT-INTERFACE
M P22
TXT (FLOF ECCT)
N P23
+12 +9 I²C
NIL
CVBS-TXT
CONTROL
C P9
IR TR
1500 IR REC
6500 LED DISPLAY
IR + LED PANEL F P16
TOP CONTROL F P16
7600
MICRO PROCESSOR
PORO
SERVICE DEFAULT MODE
VVARI
AFC
SHARPNESS
SCL
SDA
SERVICE MODE
MEMORY
BS1 • / CHROMA 0
BS2 • / CHROMA 1
10/12MHz
TRANS ID
B R G BL (OSD)
• =VST
•• =TRINORMA
QSS
G P17
1000
7000 TDA3857
3013
7001
CVBS'
2CS+I/O+INTERFACING+AMPLIFICATION
7800 TDA9840
L-INT
R-INT
SIF
AF1
AF2
9821
7820
3821
9802
9801
(PRESENT FOR BTSC WITH QSS)
(PRESENT IF NO NICAM & NO BTSC)
FM-MONO
EXT (CVBS-EXT)
CVBS-INT
SVHS
A/V'+C
7200 HEF4063
7240 HEF4063
SCART
REAR
FRONT
CVBS L R
R-OUT
L-OUT
SPATIAL
7190 TDA7056A
7191 TDA7056A
7192 TDA7056A
SUB-WOOFER
HEADPHONE PANEL
F P16
H P17 2CS
I P18 INTERFACING
J P19 AMPLIFICATION
BTSC
L P20
BTSC-R-OUT
BTSC-L-OUT
MPX
SAP
7814
NICAM
K P21
1018
7025 TDA8732
7045 TDA7820
DAC
NICAM R-OUT
NICAM L-OUT
SOUND
D P14 MULTI SOUND PANEL
1003
7120
1101...1104
SOUND FILTER
7115
3154
4.5MHz (ONLY FOR /56)
HEF
SCL SDA STROBE
SOUND-IF
2119
1105
1106
NOT FOR MULTI SOUND
7225-6F TDA8362
AUDIO-OUT
••• IF QSS PRESENT -> NO C2119
SYNC & DEFLECTION
A P9 21"
A A P11 25"
SYNC
5445
+160
V EHT
V FOCUS
V G2
BCI
+95/+115
Horizontal
7225-6E TDA8362
7440
HOR DRIVE
5441
7445
HOR DEFL
HOR FLYB
7400 TDA3653
VERT DRIVE
VERT DEFL
VERT FEEDB
NIL
Vertical
6449
6443
6452
2453
2443
2452
+26
+12
+5V5/12
= SIGNAL LINE INSIDE IC7225
POWER SUPPLY
A P9 21"
A A P11 25"
(21"/25")
MAINS INPUT PANEL (FOR 25")
90-276V ∿ OR 140-276V ∿
6504 6505 6502 6503
5525
6530
2531
(FIXED FREQUENCY TYPE)
+95/+115
6540
2540
+13
PROT
+5
POR
1011 CONTROL PANEL
7510 UC 3842
3506
9V2
7513
CL46532008/013.XREF 010294

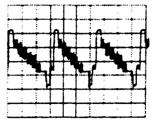
7a

TP30



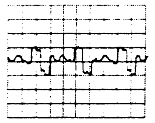
T=20us
Δv=0v5 AC

TP31



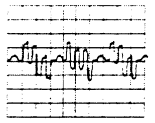
T=20us
Δv=0v5 AC

TP32



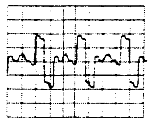
T=20us
Δv=0v2 AC

TP33



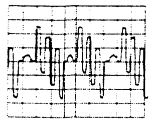
T=20us
Δv=0v2 AC

TP34



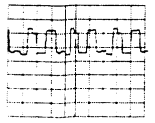
T=20us
Δv=0v2 AC

TP35



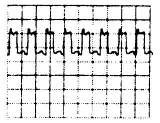
T=20us
Δv=0v2 AC

TP36



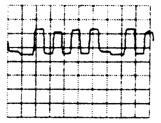
T=20us
Δv=1v

TP37



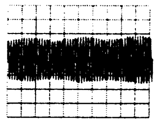
T=50us
Δv=1v

TP38



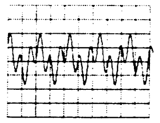
T=10us
Δv=1v

TP39



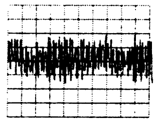
0,2V/div AC
1μs div

TP40



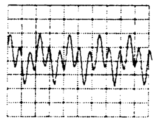
0,5V/div AC
0,5ms div

TP41



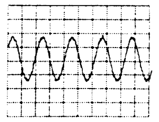
0,2V/div AC
10μs div

TP42



0,5V/div AC
0,5ms div

TP43

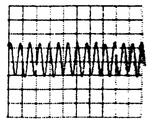


0,5V/div AC
0,5ms div

8

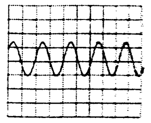
Overview oscillograms / Sumario de oscilogramas

TP46



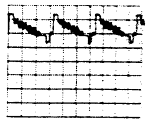
0,5V/div AC
0,5ms div

TP47



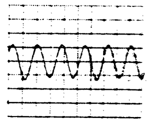
0,5V/div AC
0,5ms div

TP48



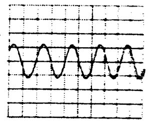
0,5V/div AC
0,5ms div

TP49



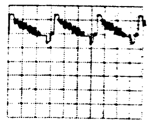
0,5V/div AC
0,5ms div

TP50



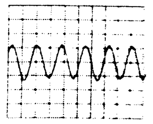
0,5V/div AC
0,5ms div

TP51



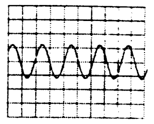
0,5V/div AC
0,5ms div

TP52



0,5V/div AC
0,2ms div

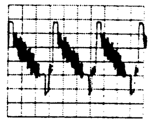
TP53



0,5V/div AC
0,5ms div

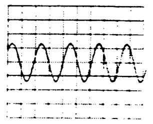
TP54 = DC 4,5V

TP55



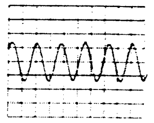
0,2V/div AC
20μs div

TP56



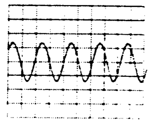
0,5V/div AC
0,5ms div

TP57



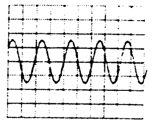
0,5V/div AC
0,2ms div

TP58



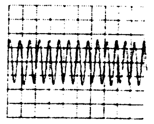
0,5V/div AC
0,5ms div

TP59



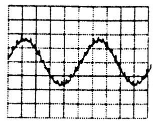
0,5V/div AC
0,5ms div

TP60



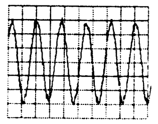
0,5V/div AC
0,5ms div

TP61



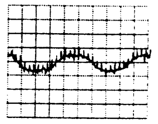
0,1V/div AC
0,2ms div

TP62



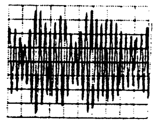
0,1V/div AC
0,2ms div

TP63



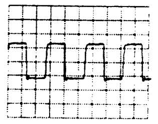
50mV/div AC
0,2ms div

TP64



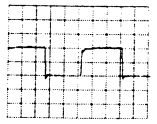
0,1V/div AC
0,5μs div

TP67



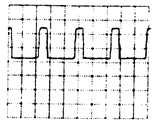
2V/div AC
0,5μs div

TP68



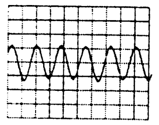
2V/div AC
0,5μs div

TP69



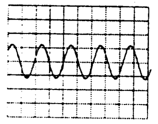
2V/div DC
20μs div

TP70



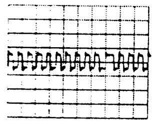
0,5V/div AC
0,2ms div

TP71



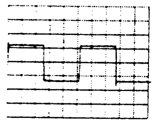
0,5V/div AC
0,5ms div

①



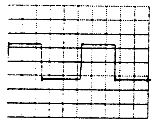
5V/div AC
0,5μs div

②



2V/div AC
0,5μs div

③



5V/div AC
0,5μs div

6. Carrier panel 21" / Panel principal 21"

0024	A2
0025	A4
1000	F3
1015	D4
1105	C5
1106	C5
1204	C5
1206	C5
1207	C5
1208	C5
1275	E4
1277	E4
1278	E4
1279	E4
1449	F2
1500	A1
1540	C3
1602	A5
1630	A4
2001	D3
2002	F4
2007	E3
2008	F4
2009	F4
2010	F4
2016	D3
2017	D3
2026	D3
2027	D3
2101	D5
2102	D5
2103	D5
2104	D4
2105	C3
2110	C3
2112	D5
2119	C5
2120	B3
2121	B3
2122	B3
2123	D5
2124	B3
2125	A3
2127	A3
2128	C3
2129	A3
2130	C3
2131	A3
2138	E5
2200	C5
2208	D5
2212	E5
2213	D4
2219	D5
2220	D5
2221	D5
2222	D4
2223	C4
2224	D5
2225	D5
2228	D5
2236	F5
2243	F5
2245	F5
2246	F5
2248	E4
2249	F4
2251	E5
2253	F4
2254	F4
2256	F4
2257	F4
2260	C5
2261	D4
2262	F4
2264	C4
2265	D4
2272	E4
2273	E4
2275	E4
2277	E4
2278	E4
2279	E4
2280	E5
2281	E4
2282	D5
2283	E5
2284	E5
2285	E5
2286	E5
2287	E5
2288	E5
2401	F2
2402	F3
2403	F2
2404	E2
2405	E3
2414	F2
2415	F3
2416	F3
2420	E4
2421	D4
2422	D4
2423	D4
2424	D4
2425	E4
2426	D4
2427	D4
2428	F4
2439	F1
2440	F1
2441	E2
2442	F1
2443	D2
2444	F1
2445	D1
2446	D1
2447	E2
2448	D2
2449	F2
2450	D1
2452	E2
2453	F2
2454	E2
2455	D1
2456	F1
2457	E1
2457	E1
2458	E2
2460	F2
2470	F1
2472	F1
2500	A1
2501	A2
2502	B2
2503	B2
2504	B2
2505	B1
2509	C1
2513	C1
2520	D2
2521	C1
2523	D2
2525	B2
2526	C2
2527	B1
2528	D1
2530	D3
2531	D2
2540	C3
2541	C2
2561	D3
2603	A5
2604	B5
2605	B5
2606	B4
2607	B5
2608	A3
2610	A3
2615	A3
2621	B4
2624	A3
2625	B5
2626	A4
2627	A4
2628	A4
2636	C3
2638	A5
2640	A5
2648	C3
2656	C3
2682	B3
2683	A3
2685	B3
2687	B4
2688	B3
2692	B3
2695	B3
2700	B4
2703	B4
2711	B5
2714	A5
2721	B5
2722	A5
2726	A5
2727	A5
2728	A5
3000	E3
3003	D3
3004	C3
3005	C3
3010	F4
3016	E3
3017	E3
3018	E3
3019	D3
3106	D5
3113	C4
3121	C3
3122	B3
3123	B3
3124	B3
3125	B3
3126	B3
3127	A3
3128	B3
3129	B3
3130	D5
3136	D5
3137	F5
3138	E5
3139	F5
3140	F5
3141	F5
3142	B3
3143	B3
3144	F5
3200	C5
3201	C5
3202	C5
3203	C5
3204	C5
3205	C5
3206	C5
3207	E5
3208	D5
3209	D5
3210	D4
3211	C5
3212	D4
3213	D4
3214	D5
3225	C5
3236	E5
3239	C5
3240	C4
3245	E4
3250	F5
3251	E5
3252	F5
3253	F4
3254	F4
3255	E5
3256	E5
3257	E5
3259	D5
3260	D5
3261	E3
3262	E3
3263	C4
3264	C4
3265	D3
3267	B5
3268	B5
3270	C5
3271	B5
3273	E4
3275	E4
3276	E4
3277	E4
3278	E4
3279	E4
3283	C3
3284	E5
3285	E5
3400	F3
3401	E3
3402	F3
3403	F2
3404	E2
3405	F2
3406	E3
3407	E3
3408	E3
3409	F2
3410	E3
3411	E2
3412	E2
3413	F3
3414	F2
3415	F2
3416	F3
3420	D4
3421	D4
3422	D4
3423	D4
3424	D3
3425	F4
3426	F4
3427	F4
3428	F4
3429	F4
3439	F1
3440	F1
3441	D3
3442	F1
3443	F1
3444	D1
3445	E1
3446	F1
3448	E2
3450	E2
3452	E2
3453	D1
3454	D1
3456	E1
3460	F2
3470	F2
3500	A2
3501	A2
3502	A2
3503	B2
3503	B2
3504	B1
3505	B2
3505	B2
3506	B2
3507	C1
3519	C1
3520	D2
3521	B1
3522	C1
3525	C2
3526	C2
3560	C3
3561	C3
3562	D3
3563	D3
3565	D3
3597	A1
3598	A1
3599	A1
3600	A4
3601	B4
3602	B4
3603	A5
3604	A5
3605	A4
3606	C4
3607	B5
3608	A3
3609	A3
3610	A5
3611	A3
3612	C4
3617	A3
3622	A4
3625	B5
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3634	A4
3635	A5
3636	C3
3637	A4
3638	A5
3640	A5
3641	A5
3642	A4
3643	A5
3646	B4
3647	B4
3648	C4
3649	C3
3650	D3
3652	B4
3653	B4
3654	C4
3656	C3
3661	A4
3662	A3
3670	B4
3671	B4
3685	B3
3687	B4
3688	B5
3689	B5
3690	B5
3691	B4
3692	B4
3693	B3
3694	A4
3695	B3
3696	B5
3697	A4
3698	A4
3699	B4
3700	B4
3702	B4
3703	B4
3704	B4
3705	B4
3706	B4
3707	A4
3708	B4
3709	A5
3710	A5
3713	C4
3715	A5
3717	B5
3718	B5
3719	B4
3720	C4
3721	C4
3726	A5
3727	A5
3728	A5
5002	D3
5014	D4
5020	D3
5100	D5
5112	D5
5206	C5
5209	D5
5260	D4
5286	E5
5287	E5
5288	E5
5424	E4
5440	F1
5441	F1
5443	E2
5445	E2
5449	F2
5454	D1
5500	A2
5500	A2
5513	C1
5520	C1
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5525	C2
5525	C2
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5540	C2
5543	C3
5620	B4
5621	B4
5622	B4
5711	B5
5720	A5
6016	E3
6108	F5
6109	B3
6110	B3
6111	B3
6254	F4
6280	E5
6283	C3
6284	E4
6286	E5
6287	E5
6288	E5
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6415	F3
6416	F2
6417	F2
6420	E4
6423	D4
6425	D4
6426	D4
6427	D4
6428	C4
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6440	F1
6441	F2
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6449	F2
6452	E2
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6470	F1
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6508	A1
6512	C1
6513	C1
6519	C1
6520	D2
6526	C1
6529	D2
6530	D3
6531	D2
6540	C2
6542	B3
6562	D3
6565	D3
6605	A5
6606	B5
6607	B5
6618	C3
6620	A3
6648	C3
6690	B4
6694	C4
6697	C4
6715	A5
6726	A5
6727	A5
6728	A5
7000	D3
7109	D3
7120	B3
7124	A3
7212	C5
7213	C5
7214	C5
7215	C3
7216	C5
7217	C5
7218	F4
7225	D4
7240	C5
7245	F5
7255	F5
7269	C5
7270	B5
7277	E4
7278	E4
7279	E4
7400	F2
7423	C4
7439	F1
7440	F1
7445	E1
7513	C1
7563	D3
7600	B4
7634	A4
7635	A5
7636	C3
7637	C4
7638	A4
7647	B4
7710	B5
9002	D3
9004	D3
9005	D3
9015	E3
9018	E3
9019	E2
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9032	E5
9033	D5
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9037	C4
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9039	C5
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9053	C5
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9092	C3
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9095	C4
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9225	C5
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9282	C4
9283	C4
9286	E5
9287	E5
9288	E5
9298	C5
9416	F3
9440	F1
9441	D3
9442	D1
9443	D1
9444	E1
9445	F1
9454	D1
9502	B2
9505	B2
9522	C1
9525	A3
9560	C3
9600	B4
9601	A4
9604	A5
9605	A5
9607	B5
9610	A5
9612	C4
9613	A3
9614	A2
9615	A2
9616	A4
9617	A2
9620	A3
9621	A3
9622	A3
9623	A3
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9638	A4
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9654	C4
9656	C3
9670	B4
9671	B4
9691	B4
9694	C4
9695	C4
9696	C4
9697	C4
9704	B4
9726	A5
9727	A5
9728	A5
M1	B1
M2	B2
M3	E3
M4	F3
M5	D1
M6	F2
M7	E5
M8	B5
M9	F5
M10	C5
M11	C1
M12	D3
M13	D5
M14	E5
M15	C3
M16	F5
M17	B5
M18	B5
M19	A3
M20	D1
M20A	E3
M21	A5
M25	A2
M26	A5
M28	A4
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M32	C5
M33	F4
M36	E2
M36A	E2
M40	D2
M41	F4
M42	D1
M50	E3
M50A	C5
M60	B3
M62	A4
M62A	B3
M70	A5
M70A	E3
M76	B5
M76A	E5
M78	D3
M78A	F2
M80	A2
M80A	C2
M82	A4
M82A	A5
M83	C3
M83A	E3
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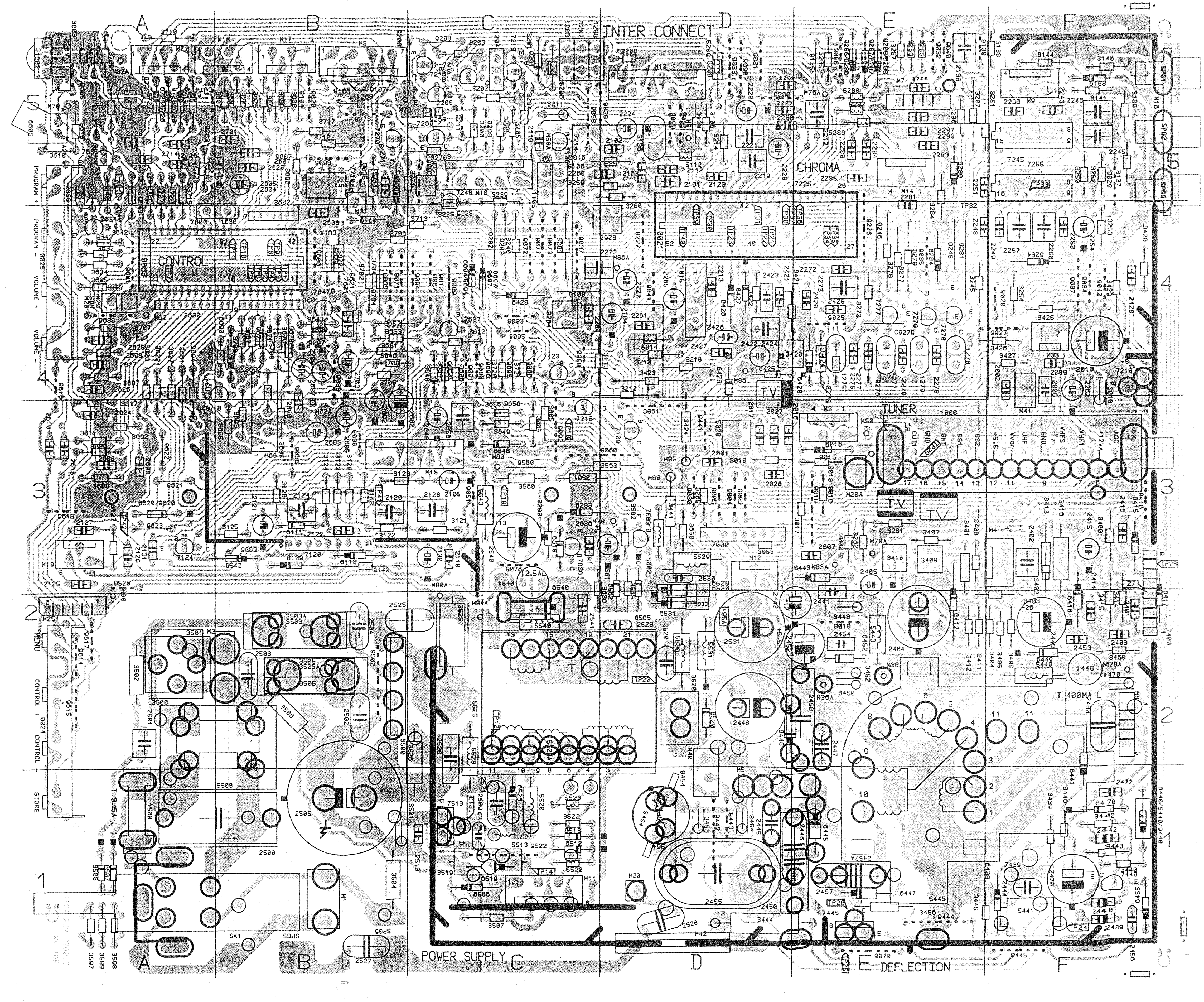
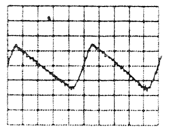
M84A	C2
M85	D3
M86	D4
M86A	D4
M88	D3
M91	D5
SK1	B1



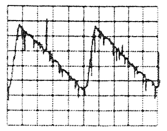
11a

TP12.25" ①



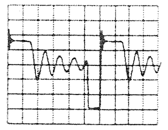
2V/div AC
2ms div

TP12.25" ⏻



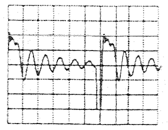
0,2V/div AC
2ms div

TP13.25" ①



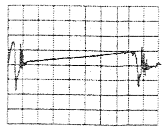
100V/div AC
5µs div

TP13.25" ⏻



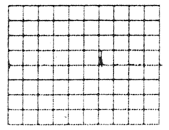
100V/div AC
5µs div

TP14.25" ①



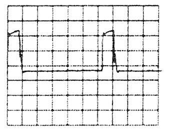
1V/div AC
0,5µs div

TP14.25" ⏻



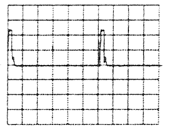
1V/div AC
0,5µs div

TP15.25" ①



5V/div AC
5µs div

TP15.25" ⏻



5V/div AC
5µs div

TP16.25" = DC 14V8
①

TP16.25" = DC 14V5
⏻

TP17.25" = DC 2V5
①

TP17.25" = DC 2V5
⏻

TP18.25" = DC 5V1
①

TP18.25" = DC 5V1
⏻

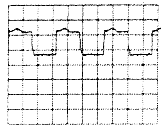
TP19.25" = DC 14V7
①

TP19.25" = DC 14V5
⏻

TP20.25" = DC 114V
①

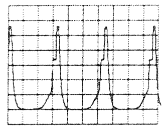
TP20.25" = DC 126V
⏻

TP21



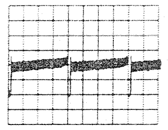
0,5V/div AC
20µs div

TP22



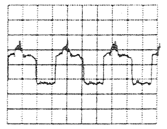
2V/div AC
20µs div

TP23



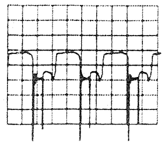
2V/div AC
5ms div

TP24



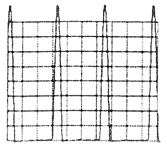
0,2V/div AC
20µs div

TP25



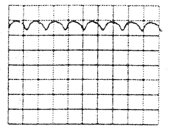
1V/div AC
20µs div

TP26



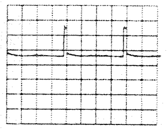
100V/div AC
20µs div

TP27



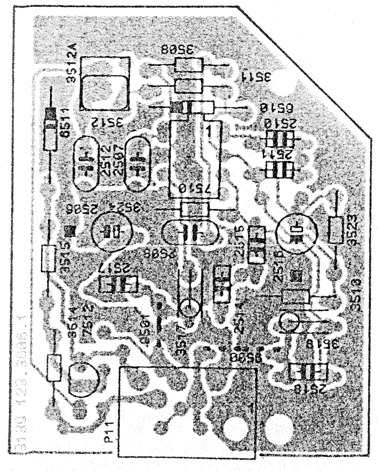
T=50us
Δv=5v

TP28



T=5ms
Δv=10v

Power supply control panel 25"



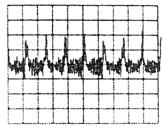
P11		M11
1	—— GND - HOT	1
2	← FEEDBACK	2
3	◄ START - UP	3
4	→ DRIVE	4
5	← SENSE	5
6	← SENSE	6

CL 46532008/11E
270194

12

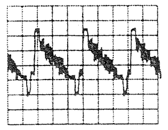
Tuner + IF + Video

TP29



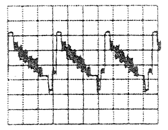
T=5ms
Δv=10v

TP30



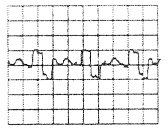
T=20us
Δv=0v5 AC

TP31



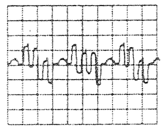
T=20us
Δv=0v5 AC

TP32



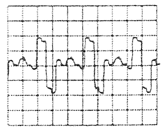
T=20us
Δv=0v2 AC

TP33



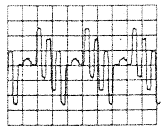
T=20us
Δv=0v2 AC

TP34



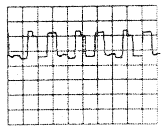
T=20us
Δv=0v2 AC

TP35



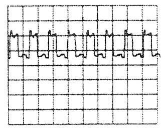
T=20us
Δv=0v2 AC

TP36



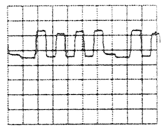
T=20us
Δv=1v

TP37

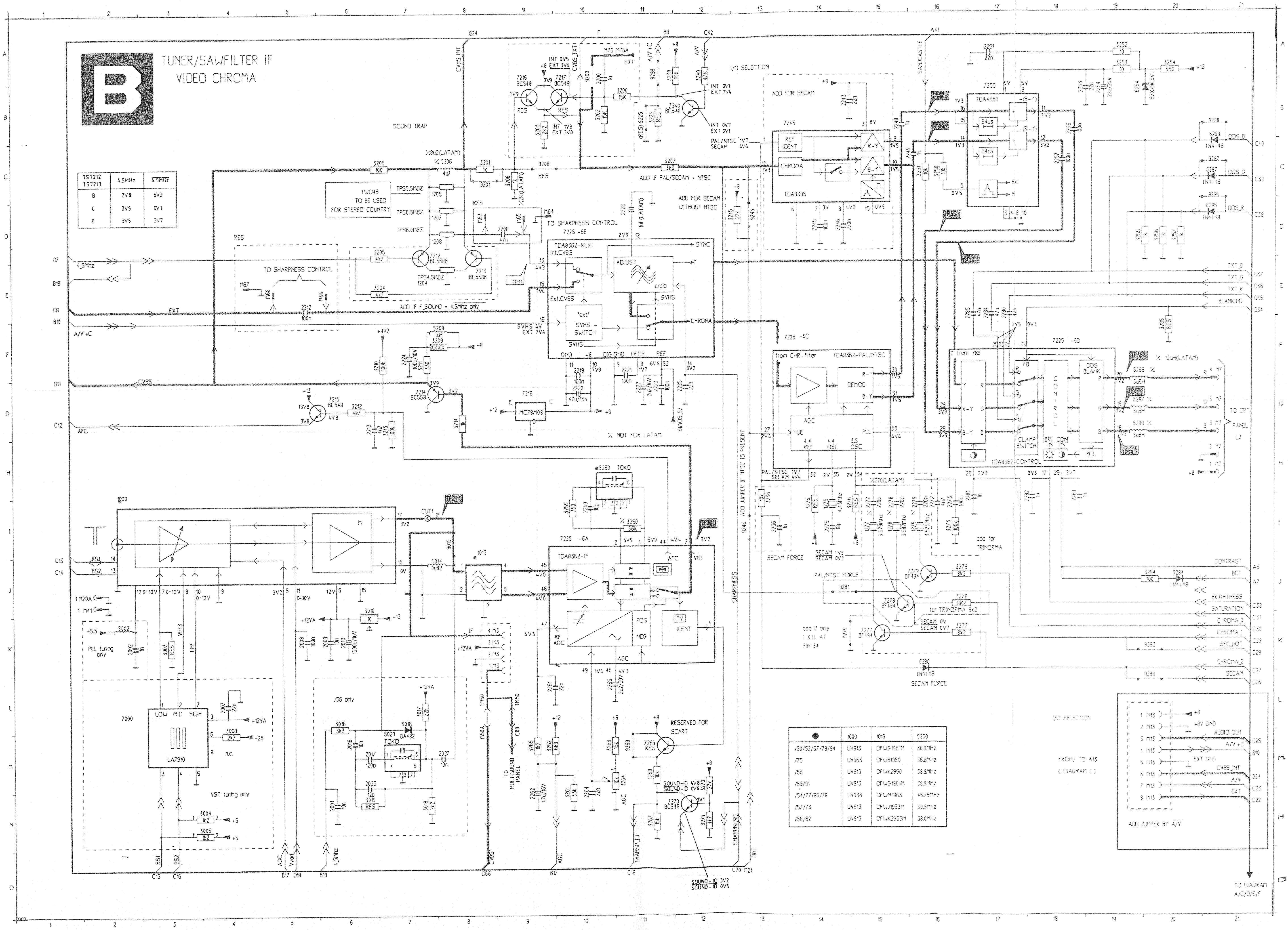


T=50us
Δv=1v

TP38



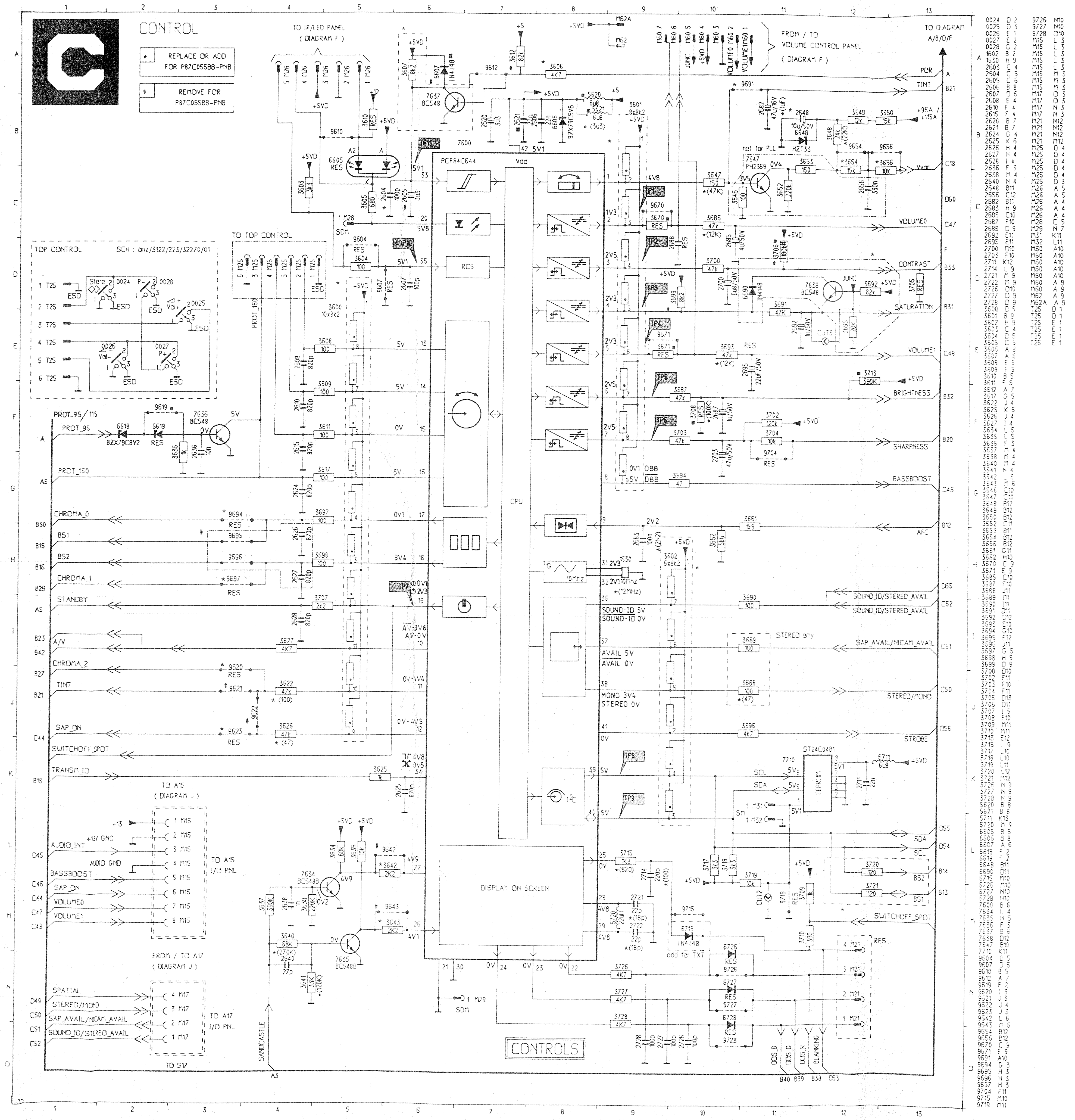
T=10us
Δv=1v

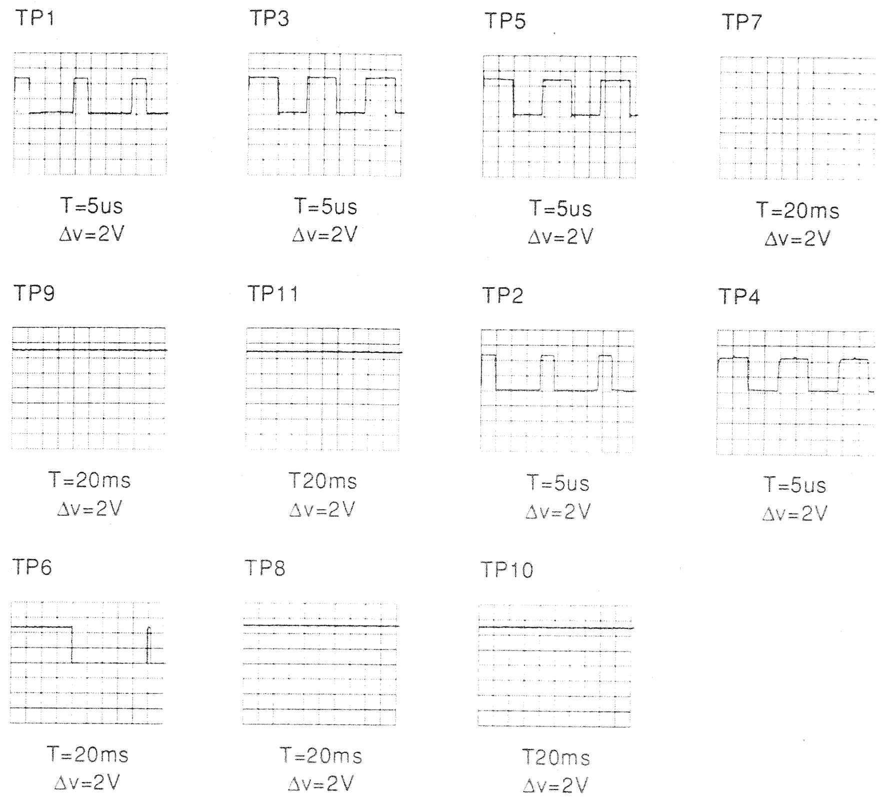

B
TUNER/SAWFILTER IF
VIDEO CHROMA
SOUND TRAP
TWO4B
TO BE USED
FOR STEREO COUNTRY
TO SHARPNESS CONTROL
ADD IF F_SOUND = 4.5Mhz only
TDA8362-KLIC
ADD IF PAL/SECAM + NTSC
ADD FOR SECAM
WITHOUT NTSC
ADD FOR SECAM
I/O SELECTION
TDA8395
TDA4661
SANDCASTLE
TDA8362-PAL/NTSC
TDA8362-CONTROL
TDA8362-IF
MC78M08
% NOT FOR LATAM
TO CRT PANEL
CONTRAST
BRIGHTNESS
SATURATION
SECAM FORCE
PAL/NTSC FORCE
add for TRINORMA
LA7910
VST tuning only
PLL tuning only
/56 only
TO MULTISOUND PANEL
RESERVED FOR SCART
SOUND-ID 3V2
SOUND-ID 0V5
FROM/ TO A13
(DIAGRAM I)
ADD JUMPER BY A/V
TO DIAGRAM A/C/D/E/F

TS7212 TS7213	4.5MHz	$\overline{4.5MHz}$
B	2V8	5V3
C	3V5	0V1
E	3V5	3V7

●	1000	1015	5260
/50/52/67/79/94	UV913	OFWG1961M	38.9MHz
/75	UV963	OFWB1950	36.8MHz
/56	UV913	OFWK2950	38.9MHz
/59/91	UV913	OFWG1961M	38.9MHz
/54/77/85/78	UV936	OFWM1963	45.75MHz
/57/73	UV913	OFWJ1953M	39.5MHz
/58/62	UV915	OFWK2953M	38.0MHz

1000	I 2
1015	I 8
1204	E 7
1206	C 7
1207	D 7
1208	D 7
1275	I14
1277	I15
1278	I15
1279	I16
2001	N 6
2002	K 2
2007	L 4
2008	K 5
2009	K 6
2010	K 6
2016	M 6
2017	M 6
2026	M 6
2027	M 8
2200	A10
2208	D 9
2212	E 5
2213	G 6
2219	F10
2220	G10
2221	F11
2222	G11
2223	G11
2224	F 7
2225	G12
2228	D11
2236	I13
2243	B14
2245	D14
2246	D14
2248	B15
2249	C16
2251	A17
2253	B18
2254	B19
2256	B18
2257	C18
2260	I10
2261	L 9
2262	N 9
2264	N10
2265	L10
2272	I16
2273	I16
2275	I14
2277	I15
2278	I15
2279	I16
2280	E17
2281	I17
2282	I18
2283	I18
2284	E17
2285	E17
3000	L 4
3003	K 3
3004	N 4
3005	N 4
3010	J 6
3016	L 6
3017	L 7
3018	N 7
3019	N 6
3200	B11
3201	C 8
3202	B10
3203	B 9
3204	E 7
3205	D 7
3206	C 7
3207	C11
3208	C 9
3209	F 8
3210	F 7
3211	F 7
3212	G 6
3213	G 7
3214	G 8
3225	B11
3236	I13
3239	A11
3240	A12
3245	D13
3250	C16
3251	C16
3252	A19
3253	A19
3254	A20
3255	D19
3256	D20
3257	D20
3259	I10
3260	I11
3261	N10
3262	M 9
3263	M10
3264	M11
3265	M 9
3267	N11
3268	M11
3270	M12
3271	N12
3273	I16
3275	I14
3276	I15
3277	K16
3278	J16
3279	J16
3284	J20
3285	F20
5002	K 2
5014	J 8
5020	M 7
5206	C 8
5209	F 8
5260	H10
5286	F19
5287	G19
5288	G19
6016	L 7
6254	B19
6280	K16
6284	J20
6286	D21
6287	C21
6288	B21
7000	L 2
7212	D 7
7213	E 8
7214	G 7
7215	G 6
7216	A 9
7217	A10
7218	G 9
7225	I10
7225	F13
7225	F18
7225	D10
7240	B12
7245	B13
7255	B17
7269	M11
7270	N12
7277	K15
7278	J15
7279	J16
9015	I 8
9200	A10
9201	C 8
9208	C 9
9225	B11
9245	D13
9246	I13
9269	M11
9279	K14
9281	J14
9282	K20
9283	L20
9286	C21
9287	C21
9288	B21
9298	A11
M13	L20
M13	L20
M13	M20
M13	M20
M13	M20
M13	M20
M13	M20
M13	N20
M20A	J 2
M3	K 9
M3	K 9
M3	K 9
M3	K 9
M41	J 2
M50	L 8
M50A	L 8
M63	D 8
M64	D 9
M65	D 9
M66	E 6
M67	E 4
M68	E 5
M7	H21
M7	H21
M7	G21
M7	F21
M7	G21
M76	A10
M76A	A11

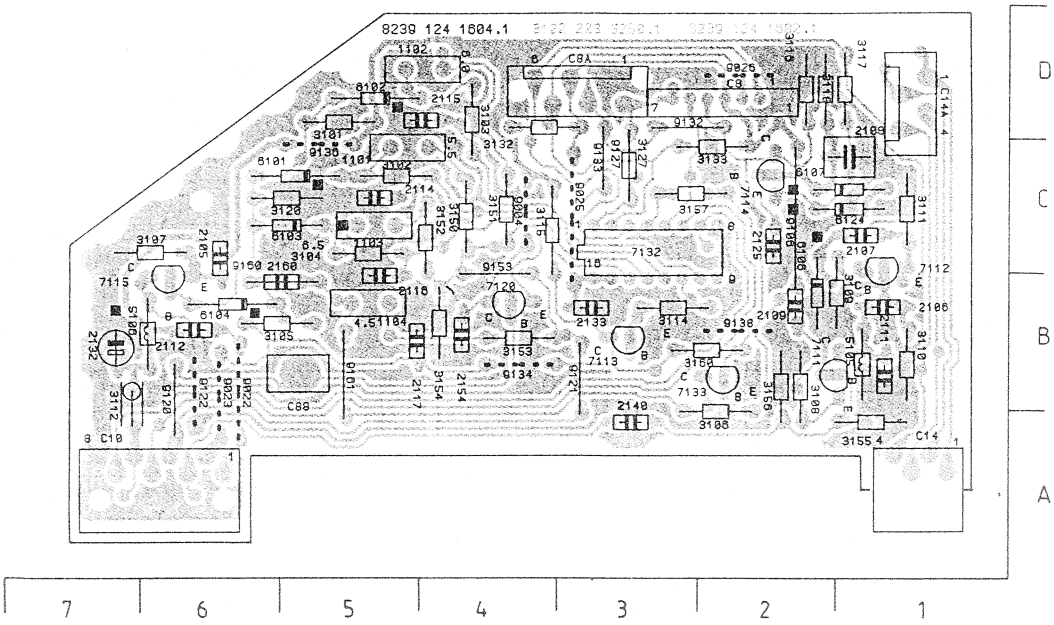

C
CONTROL
REPLACE OR ADD FOR P87C055BB-PNB
REMOVE FOR P87C055BB-PNB
TO IR/LED PANEL (DIAGRAM F)
FROM / TO VOLUME CONTROL PANEL (DIAGRAM F)
TO DIAGRAM A/B/D/F
TOP CONTROL
TO TOP CONTROL
PCF84C644
CPU
DISPLAY ON SCREEN
CONTROLS
ST24C04B1
EEPROM
TO A15 (DIAGRAM J)
TO A15 I/O PNL
FROM / TO A17 (DIAGRAM J)
TO A17 I/O PNL
TO S17
POR
TINT
VOLUME0
CONTRAST
SATURATION
VOLUME1
BRIGHTNESS
SHARPNESS
BASSBOOST
AFC
SOUND_ID/STEREO_AVAIL
SAP_AVAIL/NICAM_AVAIL
STEREO/MONO
STROBE
SDA
SCL
SWITCHOFF_SPDT
PROT_95/115
PROT_160
CHROMA_0
BS1
BS2
CHROMA_1
STANDBY
A/V
CHROMA_2
SAP_ON
TRANSM_ID
AUDIO_INT
BASSBOOST
SPATIAL
STEREO/MONO
SANDCASTLE
BLANKING



▨ for PCA84C844P	21"	25"
2621	22n	--
3670	560Ω	jumper
3671	560Ω	jumper
3706	--	180k
3708	100k	--
3713	--	390k
5620	3µ3	6µ8
5621	3µ3	6µ8
9619	--	jumper

▨ forP87C055BBPNB (South America)	21"	25"
2620	--	1µ
2621	22n	--
3708	100k	--
3713	--	390k
9619	--	jumper

Multisound panel / Panel multisonido



1101	C4	3117	D1	9025	C3
1102	D4	3118	D1	9026	D2
1103	C5	3120	C5	9106	C2
1104	B5	3127	C3	9120	A6
2105	B6	3132	C3	9121	A3
2106	B1	3133	C2	9122	A6
2107	C1	3150	C4	9127	C3
2108	C1	3151	C4	9132	C2
2109	B2	3152	B4	9133	C3
2111	A1	3153	B4	9134	B4
2112	B6	3154	B4	9136	C5
2114	C5	3155	A1	9138	B2
2115	C4	3156	A2	9153	B4
2116	B5	3157	C2	9160	B5
2117	B4	3160	B2	9161	B5
2125	B2	5105	B1	C8	C2
2132	B6	5106	B6	C8A	C3
2133	B3	6101	C5	C10	A6
2140	A3	6102	C5	C14	A1
2154	B4	6103	C5	C14A	D1
2160	B5	6104	B6	C88	B5
3101	C5	6106	B1		
3102	C4	6107	C1		
3103	C4	6124	C1		
3104	B5	7111	B1		
3105	B5	7112	B1		
3106	A2	7113	B3		
3107	B6	7114	C2		
3108	A2	7115	B6		
3109	B1	7120	B4		
3110	B1	7132	C3		
3111	C1	7133	A2		
3112	A6	7133	A2		
3114	B2	9004	C4		
3115	C3	9022	A6		
3116	D1	9023	A6		

List of abbreviations / Lista de abreviatures

+95/+115	+95/+115 Supply voltage from the power supply to the line output stage
2CS	Two carrier system (stereo sound system with 2 different sound carriers for L+R and 2R sound info)
4_5 MHz	Status signal; "low" sound trap also blocks 4.5 MHz and SAW filter adjusted at 33.4 MHz (for NTSC M)
A/V'	Status signal; "high" for external CVBS, "low" for internal CVBS
A/V	Status signal; "low" for external CVBS, "high" for internal CVBS
A/V(8V)	Status signal; "low" (0V) for external CVBS, "high" (8V) for internal CVBS
A/V' + C	A/V' status signal with chrominance part of SVHS superimposed on it
AF1	Demodulated audio signal L + R (so low frequency audio signal)
AF2	Demodulated audio signal 2R (so low frequency audio signal)
AFC	Automatic Frequency Control
AGC	Automatic Gain Control
AUDIO_INT	Volume controlled LF audio signal from pin 50 IC7225-6F (mono FM sound decoder) to Multisound panel
AUDIO_OUT	Not volume controlled LF audio signal from pin 1 IC7225-6F (mono FM sound decoder) via 2CS panel to BTSC or NICAM
BASSBOOST	Status signal; "low" for bassboost "on"
BCI	Beam Current Info; If beam current increases the BCI signal decreases
BF_VOLUME	Pulse width modulated volume control signal from µP before Volume Control Panel
BIMOS_52	Signal coming from pin 52 IC7225-6B to pin 36 IC7225-6E preventing IC7225 being "hanged" at ESD flashes
BS1	For VST sets bandswitching signal, for PLL sets SDA from I^2C
BS2	For VST sets bandswitching signal, for PLL sets SCL from I^2C
BTSC	Broadcast Television System Committee (L-R and L+R)
C-REAR	Chrominance part from SVHS signal
CRT	Picture tube
CVBS	Colour Video Blanking Sound
CVBS'	Signal with only audio info on 5.5, 5.74, 6.5 and/or 6.74 MHz sound carrier(s) (same signal as SIF)
CVBS_INT	Off-air CVBS (from tuner) after sound trap to I/O + interface panel
EEPROM	Electrical Erasable Programmable Read Only Memory
EHT	Extra High Tension (25 kV)
EXT (Y)	CVBS from I/O + interface panel (EXT) or luminance part of SVHS (Y)
FM-MONO	Low frequency FM demodulated sound from IC7225-6F
FRONT-ID	Status signal only used if front AV IN is present; "high" if CVBS front plug is inserted so FRONT AV and "low" for REAR AV
HOR	Horizontal
HUE	Tint adjustment for NTSC system
I^2C	Digital control bus of the microcomputer
IF	Intermediate Frequency
IF	IF signal from tuner to QSS panel
JUNC	Power supply voltage coming from volume control panel supplying saturation control at diagram C
KAR_SUPPLY	Supply voltage for Karaoke (optional)
L-INT	Low frequency 2CS demodulated (IC7800) sound from L-channel
MPX	Multiplexed BTSC signal
MUTE	Status signal; equal to SOUND-ID status signal from multisound muting the sound at system search
NICAM_AVAIL	Status signal; pulled "low" by NICAM panel if NICAM available
NIL	Non Interlace
NOT-SVHS	Status signal; "open" if SVHS connector inserted and "high" if SVHS connector not inserted
NTSC	National Television System Committee
OSD (DOS)	On Screen Display (in diagrams Display On Screen)
PB	Play Back
PLL	Phase Locked Loop
POR	Power On Reset
PROT_160	Status signal; switching set in standby in case beam current is too high (so BCI too low)
PROT_95/115	Status signal; switching set in standby in case +95 exceeds 110V/+115 exceeds 130V
QSS	Quasi Split Sound; Extracts L+R and 2R LF audio output and SIF info from tuner IF
R-INT	Low frequency 2CS demodulated (IC7800) sound from R-channel
RC5	Remote Control 5 system
RGB	Red Green Blue
SAP	Second Audio Program
SAP_AVAIL	Status signal; pulled "low" by BTSC panel if SAP is available
SAP_ON	Status signal; "low" for SAP selected
SAW	Sawtooth signal coming from frame IC7400 which is inverted and integrated to an inverted parabola for E/W correction in 25"
SCL	Clock of the I^2C-bus
SDA	Data of the I^2C-bus
SDM	Service default mode
SEC	Status signal; "low" forces IC7225-6C to SECAM (Sequential Couleur à Memoire) chroma decoding mode
SHARPNESS CONTROL	Provision for possible future enhanced sharpness control features
SIF	Second Intermediant Frequency; Signal with only audio info on 5.5, 5.74, 6.5 and/or 6.74 MHz sound carrier(s) (same signal as CVBS')
SM	Service mode
SOUND_ID	Status signal; pulled "low" by multisound panel if current selected sound system is not correct
SOUND_IF	LF sound signal from Multisound panel to FM mono decoder IC7225-6F
SPATIAL	Status signal; "high" gives spatial mode
STATUS	Status signal; DC level at positive side C2117 "high" if headphone inserted and "open" if no headphone
STEREO/MONO	Status signal; "low" for stereo, "high" for mono
STEREO_AVAIL	Status signal; pulled "low" by BTSC decoder if stereo sound is available
STROBE	Strobe signal from microprocessor to control IC7132 at multisound panel
SWITCHOFF SPOT	Status signal equal to standby status signal directly activating blanking at switching set to standby
TINT	Pulse width modulated control signal for hue control
TRANS_ID	Status signal; "high" for hor. sync. present to video identification
V-in	The DC voltage across C2505 present at pin 11 of the primary side of the transformer
V-VARI	Tuning voltage (0-30V for VST, 30V for PLL
VG2	Voltage on Grid 2 of the picture tube
VST	Voltage Synthesized Tuning
Y	Luminance part of the video signal
Y-REAR	Luminance part from SVHS signal

C10		M10	C8		M8	C8A		A8
1	→ SOUND IF	1	1	— GND	7	1	— NC	6
2	↠ 4.5MHz	2	2	← SCL	6	2	— GND	5
3	← AUDIO - INT	3	3	↔ SDA	5	3	↠ MUTE	4
4	← CVBS	4	4	◀ +5VD	4	4	— NC	3
5	↠ SECAM	5	5	↠ SOUND ID/	3	5	↔ SDA	2
6	◀ +8V	6		STEREO AVAIL		6	→ SCL	1
7	↠ SECAM NOT	7	6	↠ SPATIAL	2			
8	— GND	8	7	← STROBE	1			

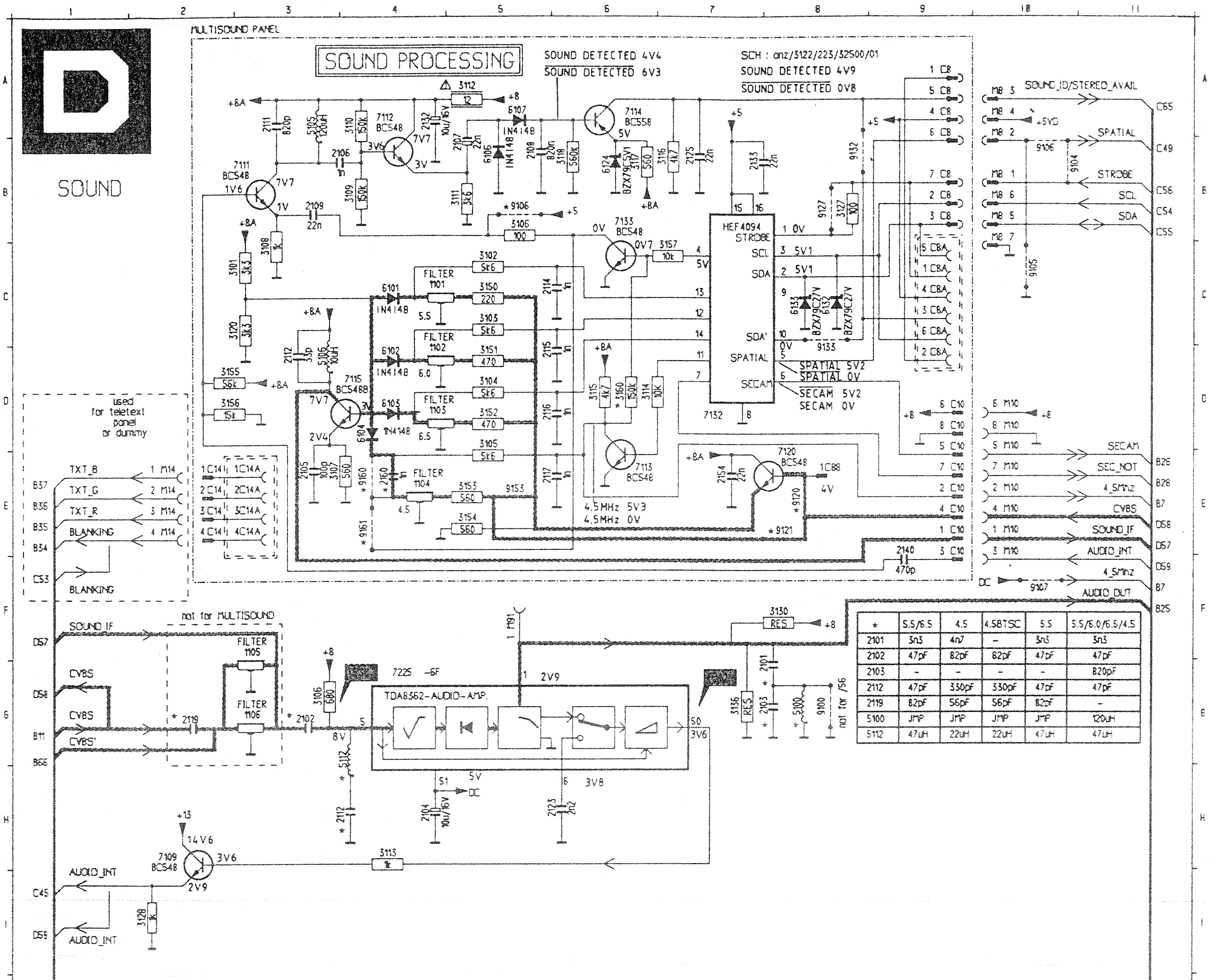
CL 46532008/110
2701

14

Multi, dual, single sound / Sonido multi, duale, single

D

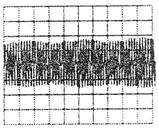
SOUND



MULTISOUND PANEL
SOUND PROCESSING
SOUND DETECTED 4V4
SOUND DETECTED 6V3
SCH : anz/3122/223/32500/01
SOUND DETECTED 4V9
SOUND DETECTED 0V8
3112
12
+8
+8A
6107
1N4148
7114
BC558
5V
7112
BC548
7V7
3V6
3V
2111
820p
5105
120uH
3110
150k
2132
10u/16V
2107
22n
6106
1N4148
2108
820n
3118
560k
6124
BZX79C5V1
3117
560
3116
4k7
2125
22n
2133
22n
9132
2106
1n
3109
150k
3111
3k6
+8A
+5
7111
BC548
1V6
7V7
1V
2109
22n
9106
3106
100
0V
7133
BC548
0V7
3157
10k
HEF4094
STROBE
SCL
SDA
SDA'
SPATIAL
SECAM
1 0V
3 5V1
2 5V1
9127
3127
100
6133
BZX79C2V7
6132
BZX79C2V7
9133
SPATIAL 5V2
SPATIAL 0V
SECAM 5V2
SECAM 0V
7132
3108
1k
3101
3k3
3120
3k3
3102
5k6
FILTER
1101
6101
1N4148
5.5
3150
220
3103
5k6
FILTER
1102
6102
1N4148
6.0
3151
470
3104
5k6
FILTER
1103
6103
1N4148
6.5
3152
470
3105
5k6
FILTER
1104
4.5
3153
560
3154
560
9153
2114
2115
2116
2117
3115
4k7
3160
150k
3114
10k
7113
BC548
4.5MHz 5V3
4.5MHz 0V
7120
BC548
1C88
4V
2154
22n
9120
9121
9160
9161
2160
2112
33p
5106
10uH
7115
BC548B
7V7
2V4
6104
2105
100p
3107
560
3155
56k
3156
15k
used for teletext panel or dummy
TXT_B
TXT_G
TXT_R
BLANKING
1 M14
2 M14
3 M14
4 M14
1C14
2C14
3C14
4C14
1C14A
2C14A
3C14A
4C14A
B37
B36
B35
B34
C53
1 C8
5 C8
4 C8
6 C8
7 C8
2 C8
3 C8
5 C8A
1 C8A
4 C8A
3 C8A
6 C8A
2 C8A
M8 3
M8 4
M8 2
M8 1
M8 6
M8 5
M8 7
9104
9105
9106
SOUND_ID/STEREO_AVAIL
+5VD
SPATIAL
STROBE
SCL
SDA
C65
C49
C56
C54
C55
6 C10
8 C10
5 C10
7 C10
2 C10
4 C10
1 C10
3 C10
6 M10
8 M10
5 M10
7 M10
2 M10
4 M10
1 M10
3 M10
SECAM
SEC_NOT
4_5Mhz
CVBS
SOUND_IF
AUDIO_INT
4_5Mhz
AUDIO_OUT
B26
B28
B7
D58
D57
D59
B7
B25
2140
470p
DC
9107
not for MULTISOUND
SOUND_IF
CVBS
CVBS
CVBS'
D57
D58
B11
B66
FILTER
1105
FILTER
1106
2119
2102
3106
680
7225
TDA8362-AUDIO-AMP.
1
2V9
5
50
3V6
8V
5112
2112
51
5V
DC
6
3V8
2104
10u/16V
2123
2n2
1M91
3130
RES
3136
RES
2101
2103
5100
9100
not for /56
+13
14V6
7109
BC548
3V6
2V9
3113
1k
AUDIO_INT
AUDIO_INT
C45
D55
3128
1k

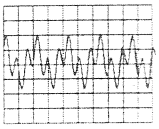
*	5.5/6.5	4.5	4.5BTSC	5.5	5.5/6.0/6.5/4.5
2101	3n3	4n7	–	3n3	3n3
2102	47pF	82pF	82pF	47pF	47pF
2103	–	–	–	–	820pF
2112	47pF	330pF	330pF	47pF	47pF
2119	82pF	56pF	56pF	82pF	–
5100	JMP	JMP	JMP	JMP	120uH
5112	47uH	22uH	22uH	47uH	47uH

TP39



0,2V/div AC
1µs div

TP40



0,5V/div AC
0,5ms div

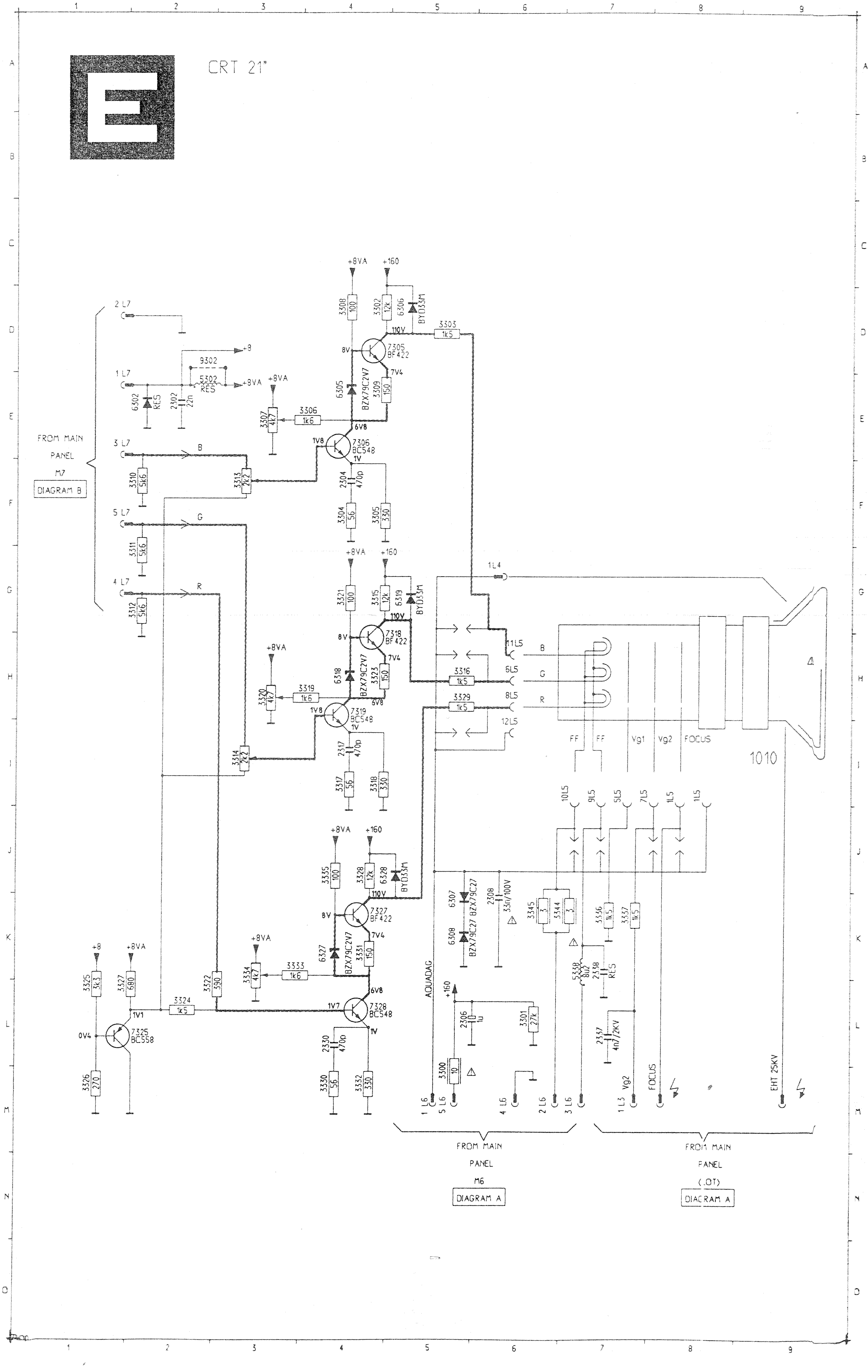
TO DIAGRAM A/B/C/D/F

C14		M14	C14A		I21
1	→ TXT B	1	1	← TXT B	4
2	→ TXT G	2	2	← TXT G	3
3	→ TXT R	3	3	← TXT R	2
4	→ BLANKING	4	4	← BLANKING	1

CL 46532008/11D
270194

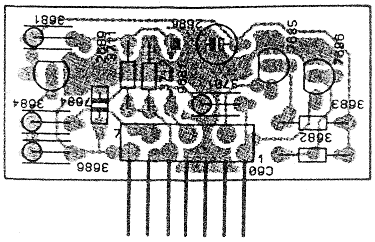
1101	C	4
1102	D	4
1103	D	4
1104	E	4
1105	F	3
1106	G	3
2101	G	8
2102	G	3
2103	G	8
2104	H	4
2105	E	3
2106	B	4
2107	B	5
2108	B	5
2109	B	3
2111	A	3
2112	D	3
2112	H	4
2114	C	5
2115	D	5
2116	D	5
2117	E	5
2119	G	2
2123	H	6
2125	B	7
2132	A	4
2133	B	7
2140	E	9
2154	E	7
2160	E	4
3101	C	3
3102	C	5
3103	C	5
3104	D	5
3105	D	5
3106	B	5
3106	G	3
3107	E	3
3108	C	3
3109	B	4
3110	A	4
3111	B	5
3112	A	5
3113	H	4
3114	D	6
3115	D	6
3116	B	7
3117	B	6
3118	B	6
3120	C	3
3127	B	8
3128	I	2
3130	F	8
3136	G	7
3150	C	5
3151	D	5
3152	D	5
3153	E	5
3154	E	5
3155	D	2
3156	D	2
3157	C	7
3160	D	6
5100	G	8
5105	A	3
5106	D	3
5112	G	4
6101	C	4
6102	D	4
6103	D	4
6104	D	4
6106	B	5
6107	A	5
6124	B	6
6132	C	8
6133	C	8
7109	H	2
7111	B	2
7112	A	4
7113	E	6
7114	A	6
7115	D	4
7120	E	8
7132	D	7
7133	B	6
7225	G	4
9100	G	8
9104	B	10
9105	C	10
9106	B	10
9106	B	5
9107	F	10
9120	E	8
9121	E	8
9127	B	8
9132	B	8
9133	D	8
9153	E	5
9160	E	4
9161	E	4
C8	E	9
C8	E	9
C8	E	9
C8	D	9
C8	D	9
C8	E	9
C8	D	9
C4	E	2
C4	E	2
C4	E	2
C4	E	2
C4A	E	3
C4A	E	3
C4A	E	3
C4A	E	3
C	A	9
C	B	9
C	B	9
C	A	9
C	A	9
C	B	9
C8	E	9
CA	C	9
CA	D	9
CA	C	9
CA	C	9
CA	C	9
M8	E	10
M8	E	10
M8	E	10
M8	E	10
M8	D	10
M8	E	10
M8	D	10
M	E	2
M	E	2
M	E	2
M	E	2
M	B	10
M	A	10
M	A	10
M	A	10
M	B	10
M	B	10
M	F	10

CRT panel 21" / Panel del TRC 21"


E
CRT 21"
FROM MAIN
PANEL
M7
DIAGRAM B
2 L7
1 L7
3 L7
5 L7
4 L7
B
G
R
9302
5302
RES
6302
RES
2302
22n
+8
+8VA
3307
4k7
3306
1k6
3310
5k6
3311
5k6
3312
5k6
3313
2k2
3314
2k2
+160
3308
100
3302
12k
6306
BYD33M
3303
1k5
110V
8V
7305
BF422
7V4
6305
BZX79C2V7
3309
150
6V8
1V8
7306
BC548
1V
2304
470p
3304
56
3305
330
3321
100
3315
12k
6319
BYD33M
7318
BF422
6318
BZX79C2V7
3323
150
3320
4k7
3319
1k6
7319
BC548
2317
470p
3317
56
3318
330
3316
1k5
3329
1k5
1L4
11L5
6L5
8L5
12L5
FF
Vg1
Vg2
FOCUS
1010
10L5
9L5
5L5
7L5
1L5
3335
100
3328
12k
6328
BYD33M
7327
BF422
6327
BZX79C2V7
3331
150
3334
4k7
3333
1k6
1V7
7328
BC548
2330
470p
3330
56
3332
330
3322
390
3324
1k5
3325
3k3
3327
680
1V1
0V4
7325
BC558
3326
270
AQUADAG
6307
BZX79C27
6308
BZX79C27
2308
33n/100V
3345
3
3344
3
3336
1k5
3337
1k5
5338
BU2
2338
RES
2306
1u
3301
27k
2337
4n7/2KV
3300
10
1 L6
5 L6
4 L6
2 L6
3 L6
1 L3
Vg2
FOCUS
EHT 25KV
FROM MAIN
PANEL
M6
DIAGRAM A
FROM MAIN
PANEL
(.OT)
DIAGRAM A
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

2302	E	2
2304	F	4
2306	L	5
2308	K	5
2317	I	4
2330	L	4
2337	L	7
2338	K	7
3300	M	5
3301	L	6
3302	D	4
3303	D	5
3304	F	4
3305	F	4
3306	E	4
3307	E	3
3308	D	4
3309	E	4
3310	F	2
3311	G	2
3312	G	2
3313	F	3
3314	I	3
3315	G	4
3316	H	5
3317	I	4
3318	I	4
3319	H	4
3320	H	3
3321	G	4
3322	L	2
3323	H	4
3324	L	2
3325	L	1
3326	M	1
3327	L	2
3328	J	4
3329	H	5
3330	M	4
3331	K	4
3332	M	4
3333	K	3
3334	K	3
3335	J	4
3336	K	7
3337	K	7
3344	K	6
3345	K	6
5302	E	2
5338	K	7
6302	E	1
6305	E	4
6306	D	5
6307	K	5
6308	K	5
6318	H	4
6319	G	5
6327	K	4
6328	J	4
7305	D	4
7306	E	4
7318	H	4
7319	H	4
7325	L	2
7327	K	4
7328	L	4
9302	D	2
L3	M	7
L4	G	6
L5	I	8
L5	I	7
L5	H	6
L5	I	7
L5	H	6
L5	I	7
L5	I	7
L5	H	6
L5	I	6
L6	M	5
L6	M	6
L6	M	7
L6	M	6
L6	M	5
L7	E	2
L7	D	2
L7	E	2
L7	G	2
L7	F	2

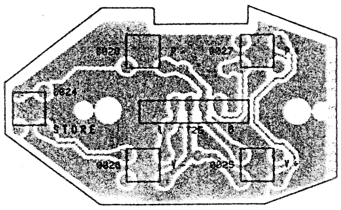
Volume control panel



C60			M60
1	↠	VOLUME 1	7
2	↠	VOLUME 0	6
3	—	GND	5
4	◄	+5V	4
5	►	JUNC	3
6	↞	BF - VOLUME 0	2
7	↞	BF - VOLUME 1	1

CL 46532008/11H
270194

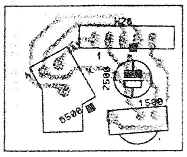
Top control panel



T24			M25
1	—	ESD GND	1
2	→	13UP	2
3	→	16UP	3
4	→	15UP	4
5	→	14UP	5
6	—	GND	6

CL 46532008/11K
270194

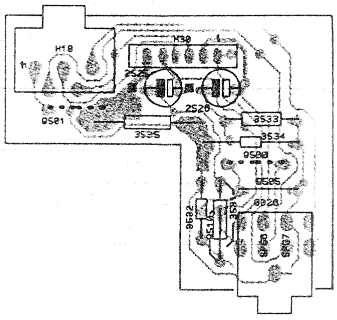
LED + IR panel



H26			M26
1	↞	A2	1
2	—	GND	2
3	◄	+5V	3
4	↠	COMMON-KATHODE	4
5	→	IR	5

CL 46532008/11L
270194

Headphone panel



H18			LS
1	→	-L	-L
2	→	+L	+L
3	—	GND	
4	→	-R	-R
5	→	+R	+R

H30			A30
1	↠	STATUS	6
2	←	+R	5
3	←	-R	4
4	—	GND	3
5	←	+L	2
6	←	-L	1

CL 46532008/11M
270194

A15			M15
1	↞	VOL 1	8
2	↞	VOL 0	7
3	↞	SAP ON	6
4	↞	BASS BOOST	5
5	—	AUDIO GND	4
6	—	NC	3
7	—	GND	2
8	◄	+13V	1

A13			M13
1	→	EXT	8
2	↞	A/V	7
3	←	CVBS INT	6
4	—	EXT GND	5
5	→	A/V + CHROMA	4
6	←	AUDIO OUT	3
7	—	GND	2
8	◄	+8V	1

A17			M17
1	↞	SPATIAL	4
2	↞	STEREO / MONO	3
3	↠	SAP AVAIL / NICAM AVAIL	2
4	↠	SOUND ID / STEREO AVAIL	1

A36			M36
1	◄	SUPPLY A	2
2	—	GND	1

A41			M41
1	—	GND	1

A8			C8A
1	←	SCL	
2	↔	SDA	
3	—	NC	
4	↞	MUTE	
5	—	GND	
6	—	NC	

A8A			M8
1	—	NC	7
2	←	SCL	6
3	↔	SDA	5
4	—	NC	4
5	←	MUTE	3
6	—	GND	2
7	—	NC	1

A40			F40
1	—	CVBS - GND	6
2	←	CVBS - FRONT	5
3	↞	FRONT - ID	4
4	←	R - FRONT	3
5	—	AUDIO - GND	2
6	←	L - FRONT	1

A30			H30
1	→	-L	6
2	→	+L	5
3	—	GND	4
4	→	-R	3
5	→	+R	2
6	↞	STATUS	1

A4			Q4
1	←	SIF	1
2	—	GND	2
3	←	AF2	3
4	—	GND	4
5	←	AF2	5

A2	(NICAM)		N2
1	—	NC	8
2	—	NC	7
3	—	NC	6
4	↞	NICAM - AVAIL	5
5	↔	SDA	4
6	→	SCL	3
7	—	GND	2
8	►	+8V	1

A2	(BTSC)		B2
1	↠	STEREO / MONO	8
2	↠	SAP - ON	7
3	↞	STEREO - AVAIL	6
4	↞	SAP - AVAIL	5
5	—	NC	4
6	—	NC	3
7	—	GND	2
8	►	+8V	1

A18			LS
1	→	-R	-R
2	—	GND	
3	→	+R	+R

A1	(NICAM)		N1
1	←	NICAM / BTSC - R - OUT	7
2	—	GND	6
3	←	NICAM / BTSC - L - OUT	5
4	—	FM - GND (AGND 3)	4
5	→	FM - MONO	3
6	—	IF - GND	2
7	→	SIF	1

A1	(BTSC)		B1
1	←	NICAM / BTSC - R - OUT	7
2	—	GND	6
3	←	NICAM / BTSC - L - OUT	5
4	—	FM - GND	4
5	→	FM - MONO	3
6	—	IF - GND	2
7	—	NC	1

A19			LS
1	→	-L	-L
2	—	GND	
3	→	+L	+L

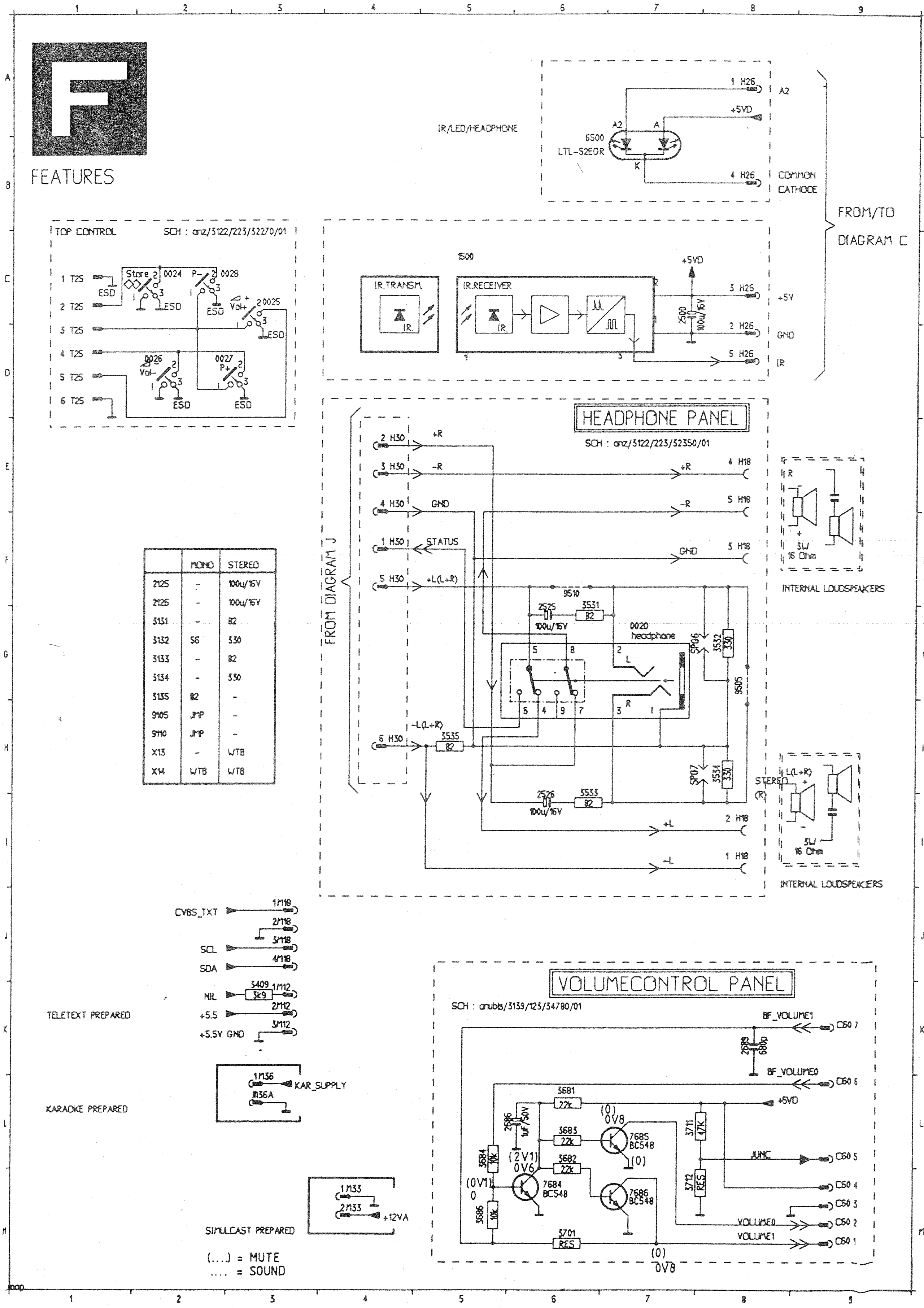
A20			LS
1	→	+SUB	+SUB
2	—	GND	
3	→	-SUB	-SUB

A22			A22A
1	→	+SUB	3
2	—	GND	2
3	→	-SUB	1

CL 46532008/11P
270194

3105	G7	3276	F5
3106	F7	3277	F5
3108	F7	3278	F5
3110	G8	3283	F7
3112	G7	3285	B7
3115	G7	3286	B7
3116	G7	3287	D6
3120	D7	3289	G6
3121	D7	3291	F4
3124	D7	3294	D7
3126	E7	3295	D7
3130	H7	3296	G7
3135	D7	3297	F7
3136	G9	3300	B8
3137	G8	3311	E4
3140	G9	3315	G2
3141	G8	3316	G2
3143	F8	3320	G2
3144	F8	3321	G3
3145	F8	3325	G3
3146	F8	3801	C1
3147	E8	3803	D1
3148	E8	3804	D1
3149	E8	3807	B1
3150	D8	3808	C3
3151	G8	3810	B1
3152	D8	3811	B1
3153	F8	3820	E2
3154	E8	3821	D1
3155	E8	3822	E1
3156	F8	3823	F2
3157	C8	3824	F1
3158	D8	3825	F2
3159	D7	3826	F2
3160	F10	3827	F2
3161	E9	3828	F1
3162	D10	3829	F1
3163	D9	3900	H9
3164	C8	3901	H9
3165	A8	5200	F3
3166	A8	5201	D6
3167	B8	5801	C2
3168	B8	6101	E7
3169	C9	6140	G8
3170	F8	6188	C10
3171	D8	6190	D8
3172	C8	6191	D8
3173	C8	6192	D9
3174	D8	6193	F8
3175	B8	6194	F9
3176	B8	6195	E8
3177	B9	6196	B8
3178	B9	6197	H5
3179	E10	6198	G6
3180	E10	6199	B10
3181	B8	6201	C5
3182	A8	6202	B5
3183	F10	6203	C5
3184	D10	6204	C5
3185	F10	6205	B7
3186	D10	6206	H5
3187	B10	6207	H5
3188	B10	6208	B7
3189	B8	6217	B4
3190	H7	6222	B7
3191	A8	6270	E4
3192	G6	6275	E7
3193	H6	6276	E7
3193	H6	6295	C8
3194	H7	6296	B9
3195	H6	6297	B4
3196	B9	6298	G3
3197	A9	6823	F2
3198	B10	6828	F2
3199	A9	7105	F7
3201	B5	7106	E6
3202	B5	7110	F7
3203	D5	7115	G7
3204	B5	7120	E6
3205	B4	7125	G7
3206	C5	7130	G7
3207	C4	7135	E7
3208	B5	7140	G8
3209	B4	7150	D8
3210	B7	7151	D7
3211	C7	7152	E8
3212	H5	7190	F9
3213	B7	7191	D9
3214	H5	7192	B9
3215	C6	7193	G6
3216	B6	7194	H6
3220	D4	7195	C8
3221	C4	7199	B10
3223	C3	7205	C5
3224	C3	7208	C4
3225	C3	7219	E4
3226	B4	7220	E3
3227	D4	7221	D4
3228	C4	7240	F3
3229	E3	7250	G3
3230	D3	7260	F6
3231	D3	7261	F7
3232	D3	7265	E6
3233	D3	7266	E7
3235	E3	7270	G5
3236	D2	7271	G5
3238	D3	7275	F5
3239	G2	7280	F5
3241	B3	7285	C7
3242	D5	7291	F4
3243	B3	7315	G3
3244	C4	7320	G3
3245	H4	7325	G4
3246	D5	7800	C2
3247	D4	7820	E2
3248	F4	7825	E2
3249	D4	7828	F1
3250	G4	7829	F1
3251	G4	9000	B8
3252	C7	9001	F9
3253	F6	9002	C9
3254	C6	9003	E8
3255	F6	9004	D9
3256	E5	9005	C9
3257	F6	9006	D8
3258	F7	9007	C8
3259	F6	9008	B5
3260	F7	9009	D7
3261	E6	9010	F7
3262	E5	9011	F8
3263	E6	9012	D6
3264	F6	9013	C4
3265	E7	9014	D4
3266	C6	9015	D4
3267	C6	9016	E2
3268	B6	9017	F2
3269	B6	9018	C3
3270	G5	9019	D6
3271	G5	9020	D4
3272	E5	9021	F2
3273	H5	9022	D3
3275	E5	9023	D6

Volume control / Top control / LED + IR / Headphone

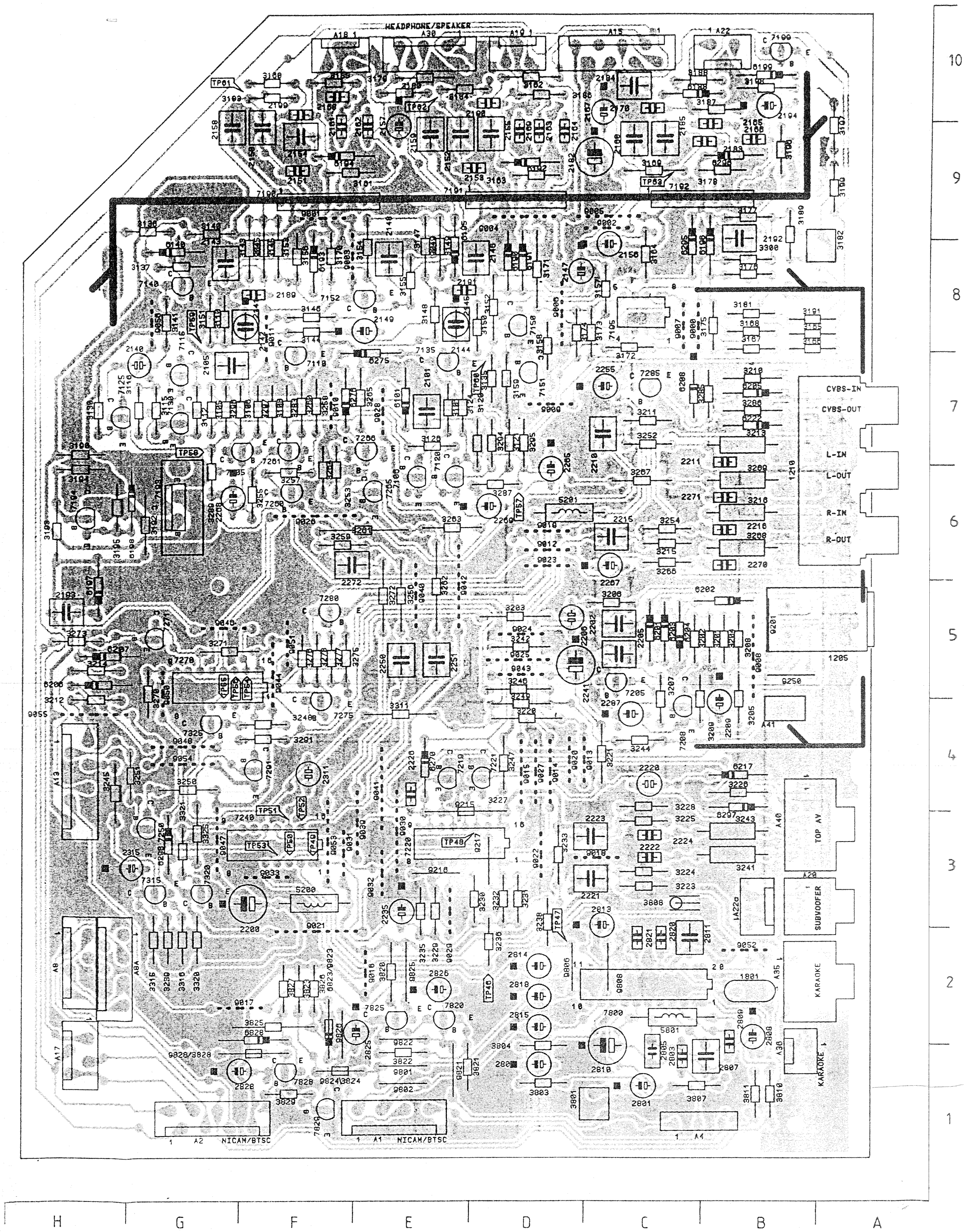

F
FEATURES
IR/LED/HEADPHONE
6500
LTL-52EGR
A2
A
K
1 H26
+5VD
4 H26
A2
COMMON CATHODE
FROM/TO DIAGRAM C
TOP CONTROL
SCH : anz/3122/223/32270/01
1 T25
2 T25
3 T25
4 T25
5 T25
6 T25
Store
0024
0028
0025
0026
0027
Vol+
Vol-
P-
P+
ESD
1500
IR.TRANSM.
IR.RECEIVER
IR.
+5VD
2500 100u/16V
3 H26
2 H26
5 H26
+5V
GND
IR
HEADPHONE PANEL
SCH : anz/3122/223/52350/01
FROM DIAGRAM J
2 H30
3 H30
4 H30
1 H30
5 H30
6 H30
+R
-R
GND
STATUS
+L(L+R)
-L(L+R)
4 H18
5 H18
3 H18
2 H18
1 H18
+R
-R
GND
+L
-L
9510
2525 100u/16V
3531 82
0020 headphone
SPG6
3532 330
9505
3535 82
SPG7
3534 330
2526 100u/16V
3533 82
STEREO (R)
R
L(L+R)
3W 16 Ohm
INTERNAL LOUDSPEAKERS
CVBS_TXT
SCL
SDA
NIL
3409 3k9
+5.5
+5.5V GND
1M18
2M18
3M18
4M18
1M12
2M12
3M12
TELETEXT PREPARED
1M36
M36A
KAR_SUPPLY
KARAOKE PREPARED
1M33
2M33
+12VA
SIMULCAST PREPARED
(...) = MUTE
.... = SOUND
VOLUMECONTROL PANEL
SCH : anubis/3139/123/34780/01
BF_VOLUME1
2689 680p
BF_VOLUME0
C50 7
C50 6
C50 5
C50 4
C50 3
C50 2
C50 1
3681 22k
+5VD
2686 1uF/50V
3683 22k
3682 22k
(0) 0V8
7685 BC548
(0)
(2V1) 0V6
(0V1) 0
7684 BC548
7686 BC548
3711 47K
3712 RES
3684 10k
3686 10k
3701 RES
JUNC
VOLUME0
VOLUME1
(0) 0V8
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M

	MONO	STEREO
2125	-	100u/16V
2126	-	100u/16V
3131	-	82
3132	56	330
3133	-	82
3134	-	330
3135	82	-
9105	JMP	-
9110	JMP	-
X13	-	WTB
X14	WTB	WTB

0020	G	7
0024	C	2
0025	C	3
0026	D	2
0027	D	2
0028	C	2
1500	C	5
2500	C	7
2525	G	6
2526	I	6
2686	L	6
2689	K	8
3409	K	3
3531	G	6
3532	G	8
3533	I	6
3534	H	8
3535	H	5
3598	M	1
3599	M	1
3681	L	6
3682	L	6
3683	L	6
3684	L	5
3686	M	5
3701	M	6
3711	L	7
3712	M	7
6500	B	6
7684	M	6
7685	L	7
7686	M	7
9505	G	8
9510	F	6
C50	M	9
C50	M	9
C50	M	9
C50	M	9
C50	L	9
C50	L	9
C50	K	9
H18	I	8
H18	I	8
H18	F	8
H18	E	8
H18	E	8
H26	A	8
H26	D	8
H26	C	8
H26	B	8
H26	D	8
H30	F	4
H30	E	4
H30	E	4
H30	E	4
H30	F	4
H30	H	4
M12	K	3
M12	K	3
M12	K	3
M18	J	3
M18	J	3
M18	J	3
M18	J	3
M33	M	4
M33	M	4
M35	L	3
M36A	L	3
SPG6	G	7
SPG7	H	7
T25	C	1
T25	C	1
T25	D	1
T25	D	1
T25	D	1
T25	D	1

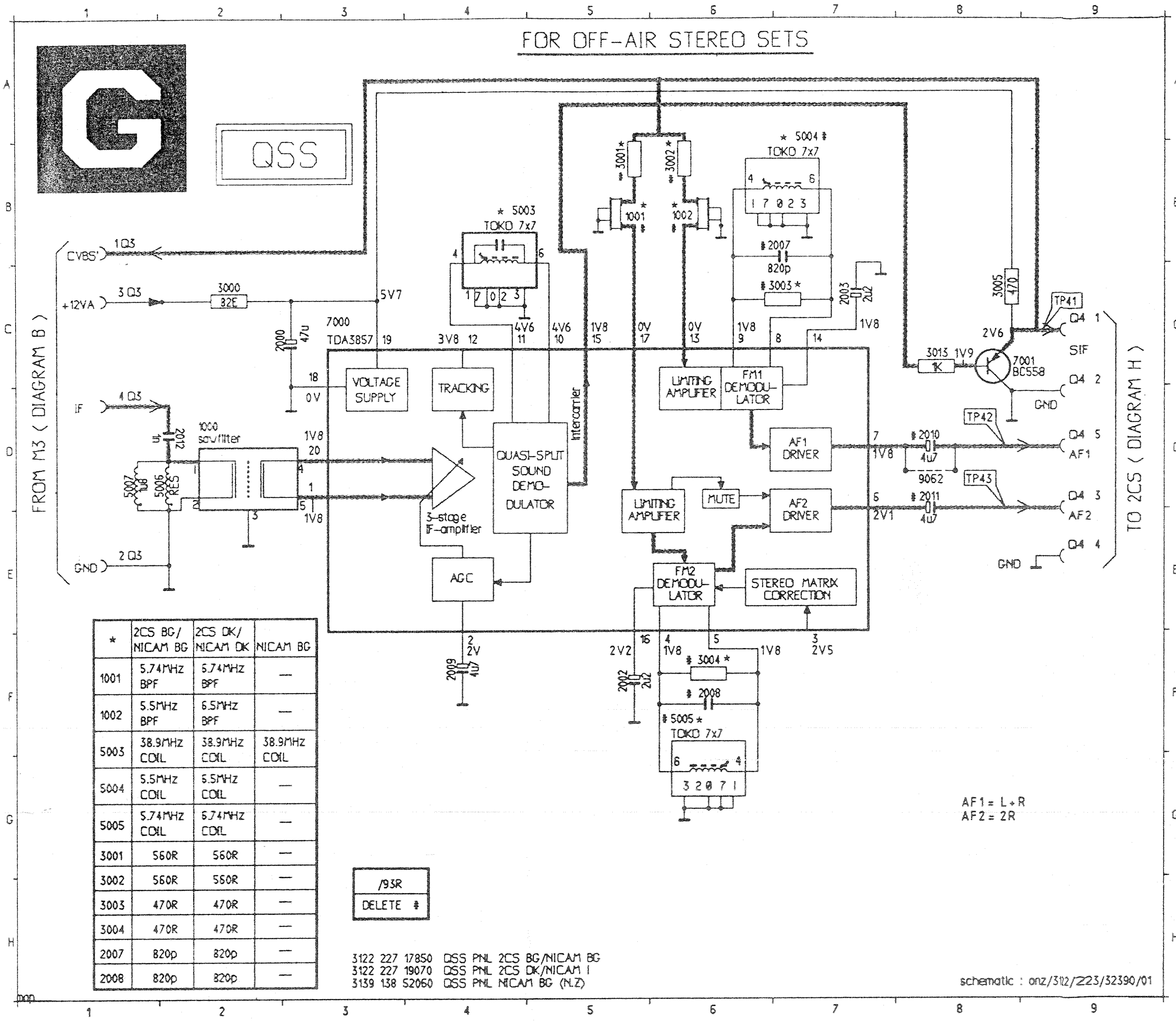
16

2CS and I/O + Interfacing


HEADPHONE/SPEAKER
A18
A30
A19
A15
A22
CVBS-IN
CVBS-OUT
L-IN
L-OUT
R-IN
R-OUT
TOP AV
A40
A20
SUBWOOFER
A22a
KARAOKE
A35
KARAOKE
A36
A13
A8
A8A
A17
A2
NICAM/BTSC
A1
NICAM/BTSC
A4
A41
10
9
8
7
6
5
4
3
2
1
H
G
F
E
D
C
B
A

1205	A5	2147	C8	2159	E9	2182	C9	2202	C5	2224	C3	2271	B6	2810	C1	9024	D5	9041	E4	9053	F3	9808	C2	A8A	H2	A40	B
1210	A6	2148	E8	2160	C9	2183	B9	2205	C5	2226	E4	2272	E6	2811	C2	9025	D5	9042	E5	9054	G4	9821	E1	A13	H4	A41	B
1801	B2	2149	E8	2161	F9	2184	C10	2206	D5	2235	E3	2287	C4	2813	C3	9026	F6	9043	D5	9055	H4	9822	E2	A15	C10		
2101	E7	2150	F9	2162	E9	2185	C9	2209	B4	2241	D5	2311	F4	2814	D2	9027	D4	9044	F5	9056	G8	9823	F2	A17	H1		
2105	F7	2151	F9	2163	D9	2189	F8	2210	C7	2250	E5	2315	G3	2815	D2	9028	E7	9045	F8	9201	B5	9824	F1	A18	F10		
2140	G7	2152	E9	2164	D9	2190	D10	2211	B7	2251	E5	2801	C1	2818	D2	9029	E3	9046	G5	9215	D4	9825	E2	A19	D10		
2141	F8	2153	D9	2165	B9	2191	D8	2215	C6	2255	C7	2802	D1	2820	C2	9030	E3	9047	G3	9216	E3	9826	F2	A20	A3		
2142	F8	2154	F9	2166	B9	2192	B8	2216	B6	2265	D6	2803	C1	2821	C2	9031	F3	9048	G4	9217	D3	9828	F1	A22	B10		
2143	G8	2155	D9	2167	C10	2193	H5	2220	C4	2267	C6	2805	C1	2825	E2	9032	E3	9049	E8	9250	B5	A1	E1	A22a	B3		
2144	E8	2156	C8	2168	F10	2194	B10	2221	C3	2268	F6	2807	B1	2826	E2	9033	F3	9050	G5	9801	E1	A2	G1	A30	E10		
2145	E8	2157	E9	2169	D9	2199	F10	2222	C3	2269	D6	2808	B2	2828	F1	9039	E3	9051	F5	9802	E1	A4	B1	A35	A2		
2146	D8	2158	F9	2170	C10	2200	F3	2223	C3	2270	B6	2809	B2	3101	E7	9040	E5	9052	B2	9806	D2	A8	H2	A36	B1		

QSS panel


FOR OFF-AIR STEREO SETS
G
QSS
FROM M3 (DIAGRAM B)
TO 2CS (DIAGRAM H)
CVBS'
1Q3
+12VA
3Q3
3000
32E
IF
4Q3
GND
2Q3
2000
47u
2012
1u
5007
1u8
5006
RES
1000
saw filter
7000
TDA3857
5V7
VOLTAGE SUPPLY
TRACKING
QUASI-SPLIT SOUND DEMODULATOR
Intercarrier
3-stage IF-amplifier
AGC
2009
4u7
2V
* 5003
TOKO 7x7
1 7 0 2 3
* 3001
* 3002
1001
1002
* 5004
TOKO 7x7
1 7 0 2 3
2007
820p
3003
2003
2u2
LIMITING AMPLIFIER
FM1 DEMODULATOR
AF1 DRIVER
LIMITING AMPLIFIER
MUTE
AF2 DRIVER
FM2 DEMODULATOR
STEREO MATRIX CORRECTION
2002
2u2
3004
2008
5005
TOKO 7x7
3 2 0 7 1
3005
470
3013
1K
7001
BC558
2V6
1V9
TP41
TP42
TP43
2010
4u7
2011
4u7
9062
Q4 1
SIF
Q4 2
GND
Q4 5
AF1
Q4 3
AF2
Q4 4
GND
AF1 = L+R
AF2 = 2R
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8
9

*	2CS BG/ NICAM BG	2CS DK/ NICAM DK	NICAM BG
1001	5.74MHz BPF	6.74MHz BPF	—
1002	5.5MHz BPF	6.5MHz BPF	—
5003	38.9MHz COIL	38.9MHz COIL	38.9MHz COIL
5004	5.5MHz COIL	6.5MHz COIL	—
5005	5.74MHz COIL	6.74MHz COIL	—
3001	560R	560R	—
3002	560R	560R	—
3003	470R	470R	—
3004	470R	470R	—
2007	820p	820p	—
2008	820p	820p	—

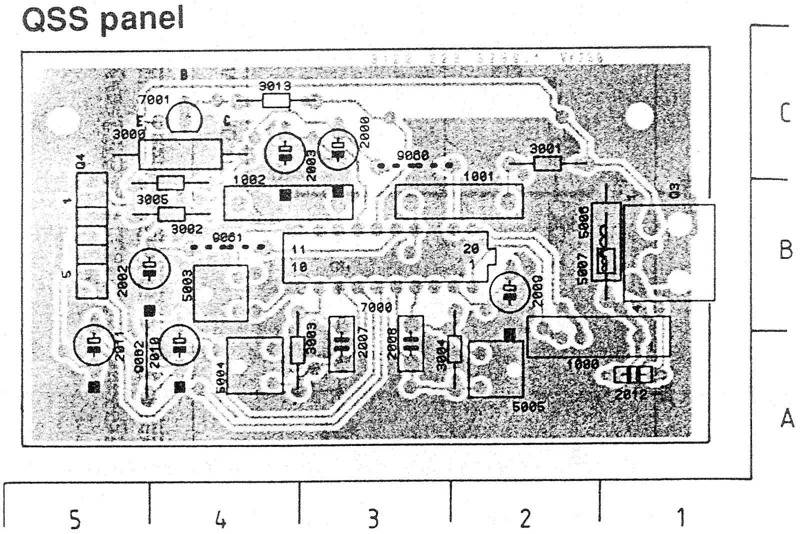
/93R
DELETE #

3122 227 17850 QSS PNL 2CS BG/NICAM BG
3122 227 19070 QSS PNL 2CS DK/NICAM I
3139 138 52060 QSS PNL NICAM BG (N.Z)

schematic : onz/3122/223/32390/01

1000	D	2
1001	B	5
1002	B	6
2000	C	2
2002	F	5
2003	C	7
2007	B	7
2008	F	6
2009	F	4
2010	D	8
2011	D	8
2012	D	2
3000	C	2
3001	B	5
3002	B	6
3003	C	7
3004	F	6
3005	C	8
3013	C	8
5003	B	5
5004	A	7
5005	F	6
5006	D	2
5007	D	1
7000	C	3
7001	C	8
9062	D	8
Q3	B	1
Q3	E	1
Q3	C	1
Q3	D	1
Q4	C	9
Q4	C	9
Q4	D	9
Q4	E	9
Q4	D	9

QSS panel


7001
3013
3000
2000
9060
3001
1002
1001
2003
3005
3002
9061
Q4
Q3
5003
5006
5007
2002
2009
7000
2011
9062
2010
5004
3003
2007
2008
3004
1000
2012
5005
C
B
A
5
4
3
2
1

1000	A1
1001	B2
1002	B3
2000	C3
2002	B4
2003	C3
2007	A3
2008	A2
2009	B2
2010	A4
2011	A5
2012	A1
3000	C4
3001	C2
3002	B4
3003	A3
3004	A2
3005	B4
5003	B4
5004	A4
5005	A2
5006	B1
5007	B1
7000	A3
7001	C4
9060	C2
9061	B4
9062	A4
Q3	B1
Q4	B5

Q3		M3	Q4		A4
1	→ CVBS'	1	1	→ SIF	1
2	— GND	2	2	— GND	2
3	← +12VA	3	3	→ AF2	3
4	← IF	4	4	— GND	4
			5	→ AF1	5

Description QSS, 2CS, I/O+interfacing and amplification

QSS (Diagram G)

- From the IF signal, coming from the tuner, the following signals are extracted on the QSS panel:
  - AF1; L+R demodulated low frequency audio signal for 2CS stereo sound dematrixing in IC7800.
  - AF2; 2R demodulated low frequency audio signal for 2CS stereo sound dematrixing in IC7800.
  - CVBS' = SIF; Audio info on sound-carrier for NICAM or BTSC sound decoding (so not demodulated yet).
    In this CVBS'/SIF the following audio signals can be present:
    4.5 MHz for M reception, 5.5 and 5.74 MHz for PAL BG 2CS stereo, 6.5 and 6.74 MHz for PAL DK 2CS stereo, 6.0 MHz for PAL I mono, 5.85 MHz for NICAM BG and 6.25 MHz NICAM I.
- For 2CS BG stereo sets filters 1002/1001 and coils 5004/5005 are tuned at resp. 5.5 and 5.74 MHz and 5003 at 38.9 MHz.
- For 2CS DK stereo sets filters 1002/1001 and coils 5004/5005 are tuned at resp. 6.5 and 6.74 MHz and 5003 at 38.9 MHz.
- For NICAM BG or NICAM I only sets, only coil 5003 is present and tuned at 38.9 MHz.
- If QSS is present CVBS from IF-detector IC7225-6A is only used for video processing and not for audio processing any more. Also if QSS is present C2119 (diagram D) is not present. The sound path is as follows (see diagram B, D and G):
  - In case the multisound panel is present CVBS from the IF-detector IC7225-6A is not used for multisound as jumpers 9120 and 9121 on multisound panel are not present. CVBS' from QSS panel is used for multisound panel via a wire from 1M50 to 1C88 from main carrier to multisound panel (jumper 9153 on multisound panel is present). After passing through the correct sound carrier on the multisound panel, the undemodulated audio signal is fed (via SOUND_IF) to IC7225-6F for FM mono sound demodulation.
  - In case the multisound panel is not present CVBS' from QSS panel is fed to IC7225-6F via a wire from 1M50 to 1M50A and filters 1105 and/or 1106 (CVBS is not used as C2119 is not present if QSS is present).

2CS (Diagram H)

- 4 main functions of IC7800 (TDA9840):
  - Dematrixing AF1 (L+R) and AF2 (2R) to L and R audio signals. R3801 is used to align the stereo separation.
  - Detect MONO, STEREO or DUAL available; send this info to µC via I^2C.
  - Source select between "internal" L & R (extracted from pin 7 and 8 IC7800) or L & R from input pins 9 & 10 IC7800. Control from µC via I^2C.
  - Source select DUAL I or DUAL II via I^2C from µC.
- If no NICAM or BTSC panel is present, then jumpers 9801 and 9802 are present passing through AUDIO_OUT from FM-mono detector IC7225-6F to pin 9 and 10 IC7800.
  If NICAM or BTSC panel is present, then L-OUT and R-OUT (low frequency audio signals from NICAM or BTSC) is fed to pin 9 and 10 IC7800.
- Jumper 9821 is present in case of BTSC reception via the QSS panel; by then AF1 signal is used for BTSC decoding and not the AUDIO_OUT signal from IC7225-6F.
- The amplitude of the AUDIO_OUT signal from IC7225-6F is adapted to the same level as L and R internally in IC7800 by TS7820 and TS7825.
- If multisound panel is present TS7828 and TS7829 is present. TS7829 will mute FM-MONO signal while multisound panel is searching for the correct sound system (while searching SOUND_ID and so MUTE is "low"; < 0.8V).

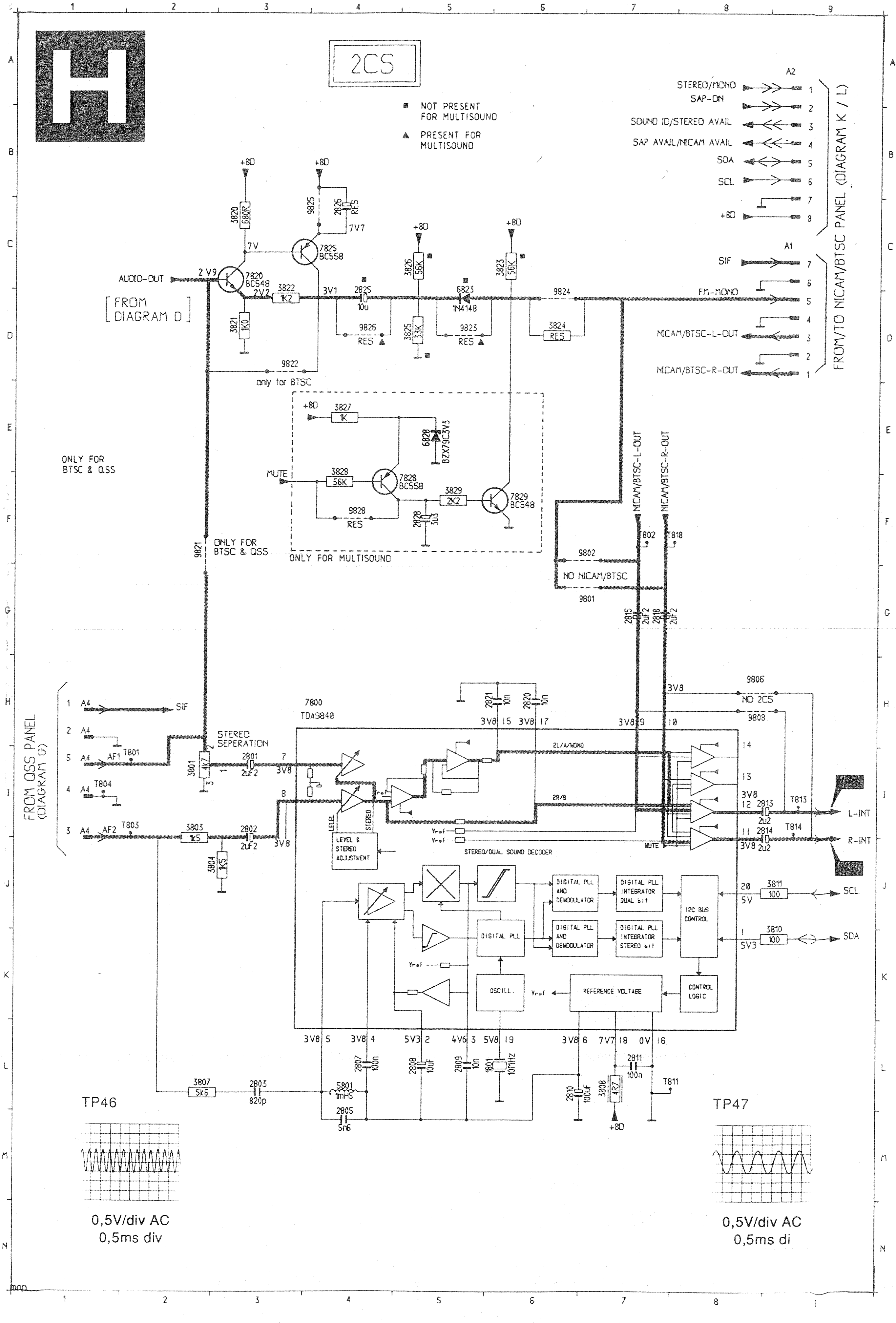
I/O + INTERFACING (Diagram I)

- IC7220 switches between REAR AV-IN (from SVHS or SCART) **OR** FRONT AV-IN.
  The FRONT-ID status signal switches IC7220 and is "high" in case CVBS cinch in FRONT-AV panel is inserted (mechanical switch). So Front AV has priority to Rear AV if both are present.
- IC7240 switches between AV-INT (aerial) **OR** AV-EXT (from REAR or FRONT via IC7220). The A/V status signal switches IC7240 and is "high" for INT and "low" for EXT.
- IC7270 switches between:
  - Stereo **OR** mono sound (input pin 12-13). If status signal STEREO/MONO is "low" for stereo and "high" for MONO (L-OUT and R-OUT are shortcircuited).
  - CVBS-INT/EXT from IC7240 **OR** CVBS from SVHS to CVBS-monitor out (input pins 12-13 IC7270).
  - A/V' **OR** A/V'+C (A/V'+C is A/V' status signal with superimposed on it the chrominance part of the SVHS) (input pins 1-2 IC7270).
- Switching for output pins 4 and 15 (resp. CVBS-monitor out and A/V' with or without C-SVHS) are driven by pin 9 and 10 IC7270 in parallel via the status signal:
  - NOT-SVHS is "open" (or high ohmic) for SVHS connector inserted and "high" for SVHS connector not inserted (mechanical switch).
  - A/V(8V) is "high" for INT and "low" for EXT (so the same polarity as the status signal A/V but then switching with 0V and 8V).
  - F-ID is "high" if CVBS front plug is inserted (so FRONT AV) and "low" if not inserted (so REAR AV). The F-ID status signal will only be used if Front AV panel is present.
- If SVHS plug is not inserted, then NOT-SVHS is "high". Both switches are in the lower position so CVBS-INT and A/V' without chroma is selected at pin 15-4 IC7270 independent of F-ID and A/V(8V).
- If SVHS plug is inserted, then NOT-SVHS is "open".
  - Only if F-ID and A/V(8V) are both "low" (so REAR AV and EXT AV selected) pin 9 and 10 IC7270 will be "low". Both switches are in the upper "SVHS-position" (CVBS-SVHS to monitor out and A/V'+C to IC7225-6B). So SVHS has priority to REAR AV in cinches if both are inserted.
  - If one or both F-ID and A/V(8V) are "high" pin 9 and 10 IC7270 will be "high".
    Both switches are in the lower position (CVBS-INT/EXT from IC7240 to CVBS monitor out and A/V'+C).

AMPLIFICATION (Diagram J)

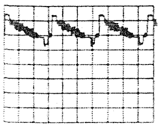
- SPATIAL; circuitry around TS7105, 7120, 7115 and 7130 is spatial circuitry.
  Spatial feature is activated if SPATIAL status signal is "high".
- HIGH PASS FILTER; This filter passes through the mid and high frequency ranges for the squeeter-amplifiers IC7190 and IC7191. For R-channel this filter is formed by C2141 and R3143 and R3153. For L-channel this filter is formed by C2144 and R3147 and R3154. If a headphone is connected the filters are deactivated to give full frequency range to IC7190 and 7191 for headphone (see STATUS).
- The LOW PASS FILTER for the subwoofer only passes through the low tones to IC7192. Low pass filter by C2167 and R3151, R3152 (R3157 for BASSBOOST "on", so "low") and by C2184 and R3169.
- IC7195 is used to determine the highest volume control level of VOLUME-0 and VOLUME-1. This highest control level is used for controlling the subwoofer amplifier at pin 5 IC7192.
- The BIAS voltage makes a stable collector current through TS7266 and TS7261 (diagram I) and a stable supply voltage for the spatial circuitry (diagram J) independent of a ripple on +13V.
- The STATUS status signal (DC at the positive side of C2157) is "high" if headphone plug is inserted and "open" if no headphone plug is inserted.
  - If no headphone, STATUS is "open" so IC7195 can determine correct volume control level for the subwoofer amplifier.
  - If headphone is inserted, STATUS is "high" and so output of IC7195 is zero. The subwoofer is muted. Also TS7151 will not conduct any more, so C2149 will not block the low frequencies (low pass filtered by R3155 and C2148) of L+R at the basis of TS7152 any more. The L+R low frequencies will be added to the mid and high frequencies from the L & R channels and so make a full range sound to the headphone.
- If HEADPHONE is inserted the speaker sound is muted on the headphone panel.

2CS Panel


H
2CS
■ NOT PRESENT FOR MULTISOUND
▲ PRESENT FOR MULTISOUND
AUDIO-OUT
[FROM DIAGRAM D]
7820 BC548
7825 BC558
3820 680R
3821 1K0
3822 1K2
2825 10u
6823 1N4148
3826 56K
3825 33K
3823 56K
3824 RES
9822 only for BTSC
+8D
7V
7V7
2V9
2V2
3V1
ONLY FOR BTSC & QSS
MUTE
3827 1K
6828 BZX79C3V3
3828 56K
7828 BC558
3829 2K2
7829 BC548
2828 3u3
9828 RES
ONLY FOR MULTISOUND
9821
NICAM/BTSC-L-OUT
NICAM/BTSC-R-OUT
9802
NO NICAM/BTSC
9801
2815 2uF2
2818 2uF2
STEREO/MONO
SAP-ON
SOUND ID/STEREO AVAIL
SAP AVAIL/NICAM AVAIL
SDA
SCL
SIF
FM-MONO
A1
A2
FROM/TO NICAM/BTSC PANEL (DIAGRAM K / L)
FROM QSS PANEL (DIAGRAM G)
A4
AF1
AF2
T801
T803
T804
3801 4K7
STEREO SEPERATION
2801 2uF2
2802 2uF2
3803 1K5
3804 1K5
7800
TDA9840
2821 10n
2820 10n
9806 NO 2CS
9808
LEVEL & STEREO ADJUSTMENT
STEREO/DUAL SOUND DECODER
DIGITAL PLL AND DEMODULATOR
DIGITAL PLL INTEGRATOR DUAL bit
DIGITAL PLL INTEGRATOR STEREO bit
DIGITAL PLL
I2C BUS CONTROL
OSCILL.
REFERENCE VOLTAGE
CONTROL LOGIC
Vref
2L/A/MONO
2R/B
MUTE
2813 2u2
2814 2u2
T813
T814
L-INT
R-INT
3811 100
3810 100
SCL
SDA
2807 100n
2808 10uF
2809 10n
1801 10MHz
2810 100uF
3808 4R7
2811 100n
T811
3807 5k6
2803 820p
5801 1mH5
2805 5n6
TP46
0,5V/div AC
0,5ms div
TP47
0,5V/div AC
0,5ms di

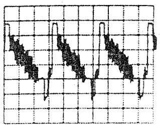
1801	L	6
2801	I	3
2802	I	3
2803	L	3
2805	M	4
2807	L	4
2808	L	5
2809	L	5
2810	L	6
2811	L	7
2813	I	8
2814	I	8
2815	G	7
2818	G	7
2820	H	5
2821	H	6
2825	D	4
2826	C	4
2828	F	5
3801	I	2
3803	I	2
3804	J	3
3807	L	2
3808	L	7
3810	K	9
3811	J	9
3820	C	3
3821	D	3
3822	D	3
3823	C	6
3824	D	6
3825	D	5
3826	C	5
3827	E	4
3828	F	4
3829	F	5
5801	L	4
6823	D	5
6828	E	5
7800	H	3
7820	C	3
7825	C	4
7828	F	5
7829	F	6
9801	G	7
9802	F	7
9806	H	8
9808	H	8
9821	F	2
9822	D	3
9823	D	5
9824	D	6
9825	C	4
9826	D	4
9828	F	4
A1	C	9
A2	A	9
A4	H	1
A4	H	1
A4	I	1
A4	I	1
A4	I	1

TP48



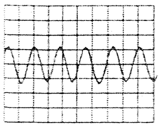
0,5V/div AC
0,5ms div

TP55



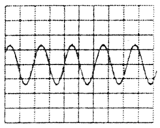
0,2V/div AC
20ms div

TP49



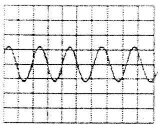
0,5V/div AC
0,5ms div

TP56



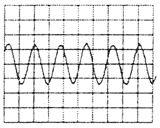
0,5V/div AC
0,5ms div

TP50



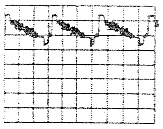
0,5V/div AC
0,5ms div

TP57



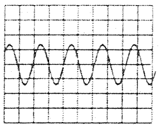
0,5V/div AC
0,2ms div

TP51



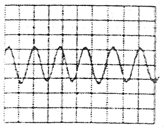
0,5V/div AC
0,5ms div

TP58



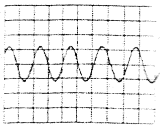
0,5V/div AC
0,5ms div

TP52



0,5V/div AC
0,2ms div

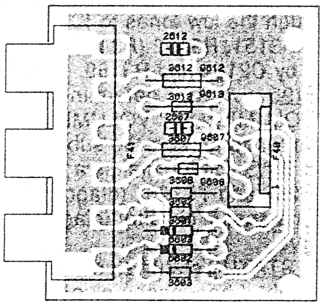
TP53



0,5V/div AC
0,5ms div

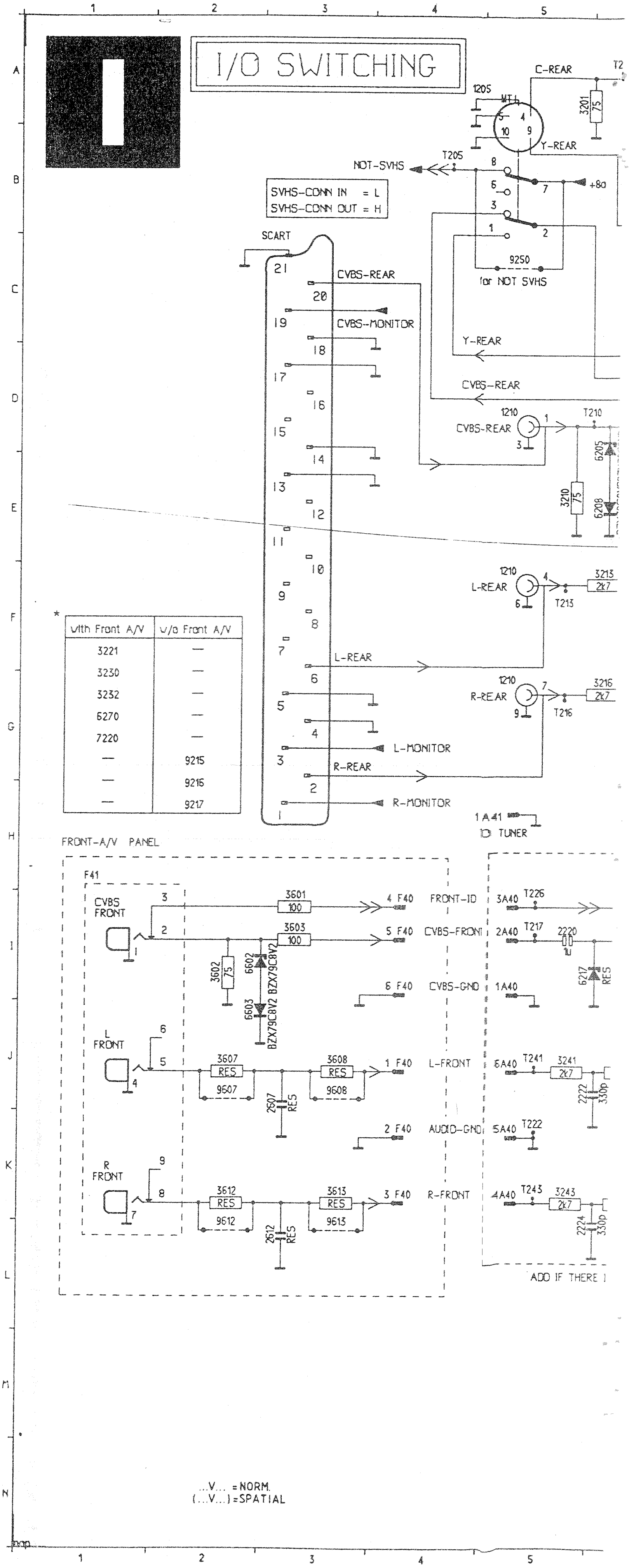
TP54 = DC 4,5V

Front AV-IN panel


2612
3612
9612
9613
3613
2607
9607
3607
3608
9608
F41
F40
3603
3602

F40			A40
1	→	L - FRONT	6
2	—	AUDIO GND	5
3	→	R - FRONT	4
4	⇉	FRONT - ID	3
5	→	CVBS - FRONT	2
6	—	CVBS - GND	1

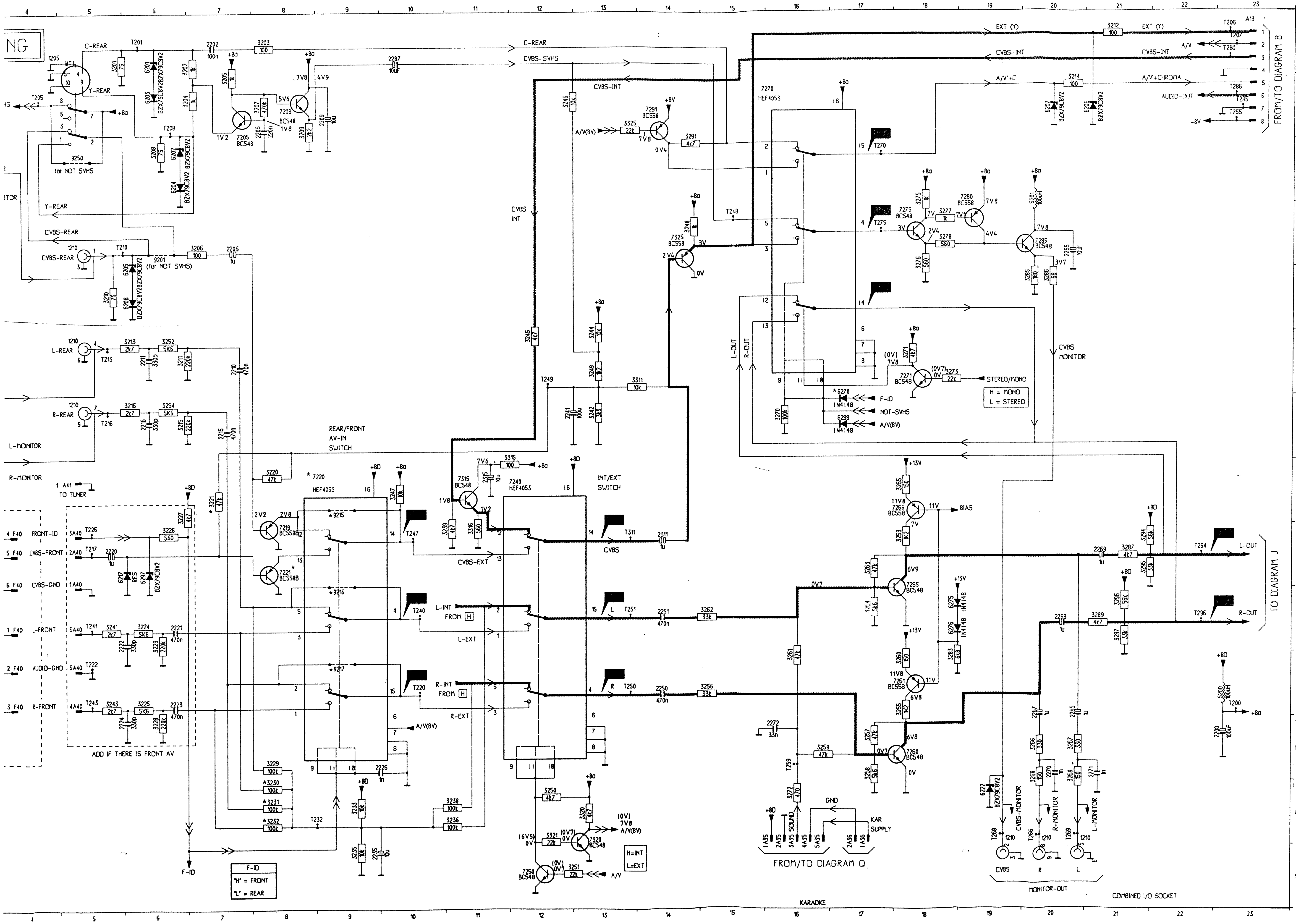
CL 46532008/11N
270194


I
I/O SWITCHING
C-REAR
Y-REAR
1205
3201
75
NOT-SVHS
T205
+8a
SVHS-CONN IN = L
SVHS-CONN OUT = H
9250
for NOT SVHS
SCART
CVBS-REAR
CVBS-MONITOR
Y-REAR
CVBS-REAR
1210
T210
3210
75
6205
6208
L-REAR
T213
3213
2k7
L-REAR
R-REAR
T216
3216
2k7
L-MONITOR
R-REAR
R-MONITOR
1A41
TO TUNER
FRONT-A/V PANEL
F41
CVBS FRONT
3601
100
3603
100
3602
75
6602
6603
BZX79C8V2
4 F40
5 F40
6 F40
FRONT-ID
CVBS-FRONT
CVBS-GND
L FRONT
3607
RES
9607
2607
RES
3608
RES
9608
1 F40
L-FRONT
2 F40
AUDIO-GND
R FRONT
3612
RES
9612
2612
RES
3613
RES
9613
3 F40
R-FRONT
3A40
T226
2A40
T217
2220
6217
RES
1A40
6A40
T241
3241
2k7
2222
330p
5A40
T222
4A40
T243
3243
2k7
2224
330p
ADD IF THERE !

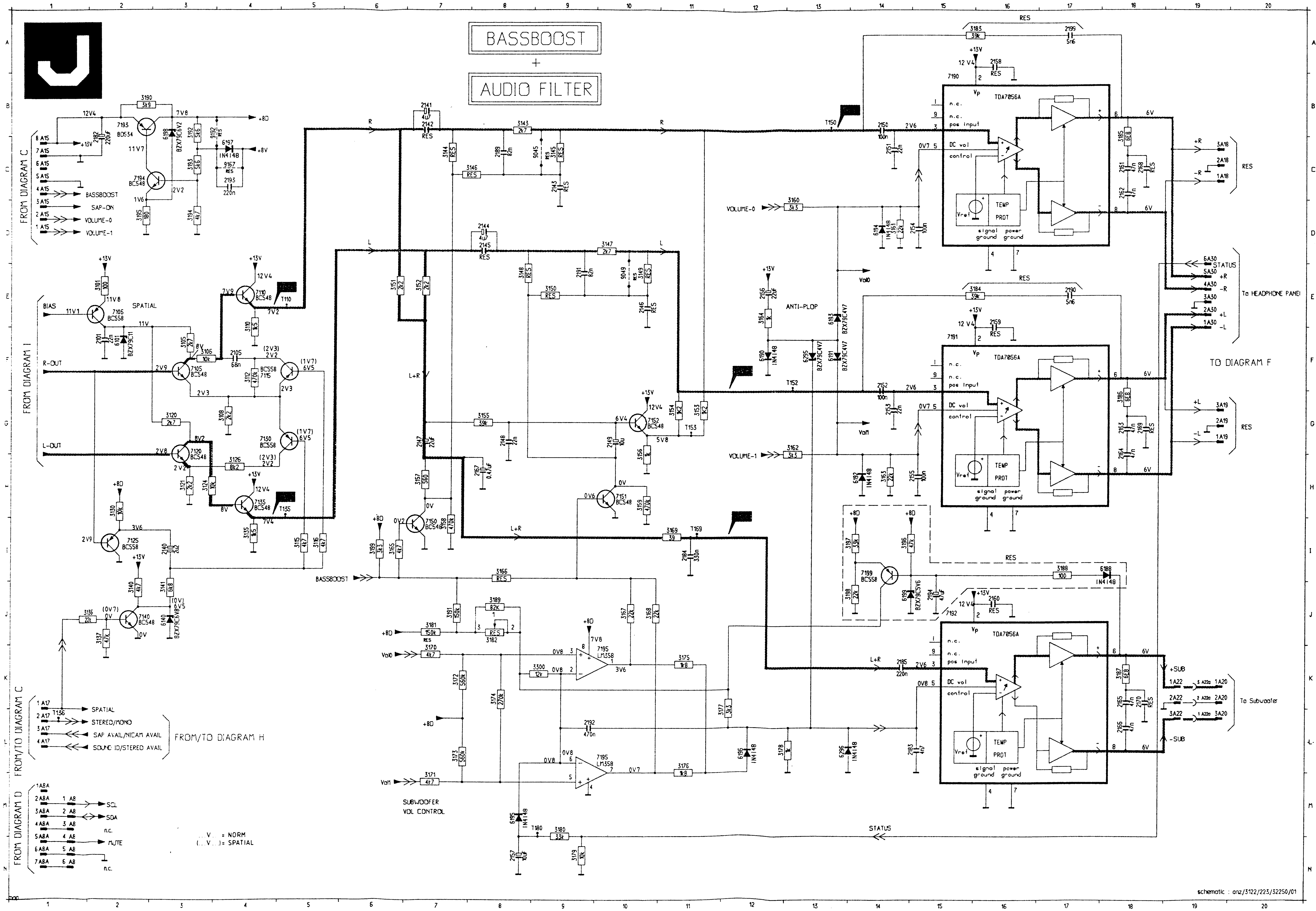
*

With Front A/V	w/o Front A/V
3221	—
3230	—
3232	—
6270	—
7220	—
—	9215
—	9216
—	9217

...V... = NORM.
(...V...) = SPATIAL


C-REAR
Y-REAR
CVBS-REAR
C-REAR
CVBS-SVHS
CVBS-INT
EXT (Y)
CVBS-INT
A/V+C
A/V+CHROMA
AUDIO-OUT
FROM/TO DIAGRAM B
9250 for NOT SVHS
9201 (for NOT SVHS)
L-REAR
R-REAR
L-MONITOR
R-MONITOR
1 A41 TO TUNER
REAR/FRONT AV-IN SWITCH
7220 HEF4053
7240 HEF4053
INT/EXT SWITCH
7270 HEF4053
CVBS INT
CVBS-EXT
CVBS
L-INT FROM H
L-EXT
R-INT FROM H
R-EXT
A/V(8V)
4 F40 FRONT-ID
5 F40 CVBS-FRONT
6 F40 CVBS-GND
1 F40 L-FRONT
2 F40 AUDIO-GND
3 F40 R-FRONT
ADD IF THERE IS FRONT AV
F-ID
F-ID "H" = FRONT "L" = REAR
H=INT L=EXT
STEREO/MONO
H = MONO L = STEREO
F-ID
NOT-SVHS
A/V(8V)
L-OUT
R-OUT
CVBS MONITOR
BIAS
TO DIAGRAM J
FROM/TO DIAGRAM Q
SOUND
GND
KAR SUPPLY
KARAOKE
CVBS-MONITOR
R-MONITOR
L-MONITOR
CVBS R L
MONITOR-OUT
COMBINED I/O SOCKET

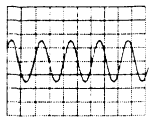
1205	A 4	6297	I 6
1210	M20	6298	G17
1210	M20	6602	I 2
1210	M19	6603	J 2
1210	F 5	7205	B 7
1210	D 5	7208	B 8
1210	G 5	7219	I 8
2200	L23	7220	H 8
2202	A 7	7221	I 8
2205	B 8	7240	H11
2206	D 7	7250	N12
2209	B 9	7260	L18
2210	F 7	7261	K18
2211	F 6	7265	I18
2215	G 7	7266	H18
2216	G 6	7270	B15
2220	I 5	7271	F18
2221	J 6	7275	D18
2222	J 5	7280	C19
2223	K 6	7285	D20
2224	L 5	7291	B14
2226	L10	7315	H11
2235	N 9	7320	M13
2241	G12	7325	D14
2250	K14	9201	D 6
2251	J14	9215	H 9
2255	D20	9216	J 9
2265	K20	9217	K 9
2267	K20	9250	C 5
2268	J20	9507	J 2
2269	I21	9608	J 3
2270	L20	9612	L 2
2271	L21	9613	L 3
2272	L16	A13	A23
2287	A10	A35	M16
2311	I14	A35	M15
2315	H11	A35	M16
2607	J 3	A35	M16
2612	L 3	A35	M15
3201	A 5	A36	M17
3202	A 7	A36	M17
3203	A 8	A40	I 5
3204	B 7	A40	I 5
3205	A 7	A40	I 5
3206	D 7	A40	K 5
3207	B 8	A40	K 5
3208	C 6	A40	J 5
3209	B 8	A41	H 5
3210	E 5	F40	J 4
3211	F 6	F40	K 4
3212	A21	F40	K 4
3213	F 6	F40	I 4
3214	B20	F40	I 4
3215	G 6	F40	I 4
3216	G 6	F41	H 1
3220	H 8		
3221	H 7		
3223	J 6		
3224	J 6		
3225	K 6		
3226	I 6		
3227	H 6		
3228	L 6		
3229	L 8		
3230	M 8		
3231	M 8		
3232	M 8		
3233	M 9		
3235	N 9		
3236	M11		
3238	M11		
3239	I11		
3241	J 5		
3242	G13		
3243	K 5		
3244	E13		
3245	F12		
3246	B12		
3247	H10		
3248	D14		
3249	F13		
3250	M12		
3251	N13		
3252	F 6		
3253	I18		
3254	G 6		
3255	K18		
3256	K15		
3257	L17		
3258	L17		
3259	L16		
3260	K18		
3261	K16		
3262	J15		
3263	I17		
3264	J17		
3265	H18		
3266	L20		
3267	L20		
3268	L20		
3269	L20		
3270	G16		
3271	F18		
3272	M16		
3273	F18		
3275	C18		
3276	D18		
3277	D18		
3278	D18		
3283	K18		
3285	E20		
3286	E20		
3287	I21		
3289	J21		
3291	B14		
3294	I21		
3295	I21		
3296	J21		
3297	J21		
3311	F14		
3315	G12		
3316	I11		
3320	M13		
3321	M12		
3325	B13		
3601	I 3		
3602	I 2		
3603	I 3		
3607	J 2		
3608	J 3		
3612	K 2		
3613	K 3		
3900	E 2		
3901	E 2		
5200	K23		
5201	C20		
6201	A 6		
6202	C 6		
6203	B 6		
6204	C 6		
6205	D 6		
6206	B21		
6207	B20		
6208	E 6		
6217	I 5		
6222	M19		
6270	F17		
6275	J18		
6276	J18		


J
BASSBOOST
+
AUDIO FILTER
FROM DIAGRAM C
8 A15
7 A15
6 A15
5 A15
4 A15
3 A15
2 A15
1 A15
BASSBOOST
SAP-ON
VOLUME-0
VOLUME-1
FROM DIAGRAM I
BIAS
SPATIAL
R-OUT
L-OUT
FROM/TO DIAGRAM C
SPATIAL
STEREO/MONO
SAP AVAIL/NICAM AVAIL
SOUND ID/STEREO AVAIL
FROM/TO DIAGRAM H
FROM DIAGRAM D
SCL
SDA
n.c.
MUTE
n.c.
..V.. = NORM
(..V..)= SPATIAL
SUBWOOFER
VOL CONTROL
ANTI-PLOP
STATUS
TDA7056A
TEMP
PROT
Vref
DC vol
control
pos input
signal ground
power ground
LM358
To HEADPHONE PANEL
TO DIAGRAM F
To Subwoofer
RES
+SUB
-SUB
+R
-R
+L
-L
L+R
Vol0
Vol1

schematic : anz/3122/223/32250/01

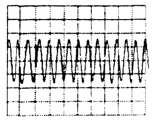
2101	F 2
2105	F 4
2140	I 3
2141	B 7
2142	B 7
2143	C 9
2144	D 8
2145	D 8
2146	E10
2147	G 7
2148	G 8
2149	G10
2150	B14
2151	C14
2152	F14
2153	G14
2154	D15
2155	H15
2156	E12
2157	N 8
2158	A16
2159	E16
2160	J16
2161	C18
2162	C18
2163	G18
2164	G18
2165	K18
2166	L18
2167	H 8
2168	C18
2169	G18
2170	K18
2182	B 2
2183	L15
2184	I11
2185	K14
2189	C 8
2190	E17
2191	E 9
2192	L 9
2193	C 4
2194	J15
2199	A17
3101	E 2
3105	F 3
3106	F 3
3108	G 4
3110	E 4
3112	F 4
3115	I 5
3116	I 5
3120	G 3
3121	H 3
3124	H 3
3126	H 4
3130	H 2
3135	I 4
3136	J 2
3137	J 2
3140	J 2
3141	J 3
3143	B 8
3144	C 7
3145	C 9
3146	C 8
3147	D10
3148	E 8
3149	E10
3150	E 9
3151	E 6
3152	E 7
3153	G11
3154	G11
3155	G 8
3156	G10
3157	H 7
3158	I 7
3159	H10
3160	D13
3161	D14
3162	G13
3163	H14
3164	E12
3165	I 6
3166	I 8
3167	J10
3168	J10
3169	I11
3170	K 7
3171	M 7
3172	K 7
3173	L 7
3174	K 8
3175	K11
3176	L11
3177	L12
3178	L12
3179	N 9
3180	M 9
3181	J 7
3182	J 8
3183	A16
3184	E16
3185	B18
3186	G18
3187	K18
3188	I17
3189	J 8
3190	B 2
3191	J 7
3192	B 3
3193	C 3
3194	D 3
3195	D 2
3196	I14
3197	I14
3198	J14
3199	I 6
3300	K 9
6101	F 2
6140	J 3
6188	I18
6190	F12
6191	F13
6192	H14
6193	E13
6194	D14
6195	M 8
6196	L12
6197	C 4
6198	B 3
6199	J14
6295	F13
6296	L13
7105	F 3
7106	E 2
7110	E 4
7115	F 4
7120	G 3
7125	I 2
7130	G 4
7135	H 4
7140	J 2
7150	I 7
7151	H10
7152	G10
7190	B15
7191	F15
7192	J15
7193	B 2
7194	C 2
7195	K10
7195	L10
7199	I14
9045	C 9
9049	E10
9167	C 4
9192	B 3
A15	D 1
A15	D 1
A15	D 1
A15	C 1
A15	C 1
A15	C 1
A15	C 1
A15	C 1
A17	K 1
A17	L 1
A17	L 1
A17	L 1
A18	C19
A18	C19
A18	C19
A19	G19
A19	G19
A19	G19
A20	K19
A20	K19
A20	L19
A22	K19
A22	K19
A22	L19
A22a	L19
A22a	K19
A22a	K19
A30	E19
A30	E19
A30	E19
A30	E19
A30	E19
A30	D19
A8	M 1
A8	M 1
A8	M 1
A8	N 1
A8	N 1
A8	N 1
A8A	M 1
A8A	M 1
A8A	M 1
A8A	M 1
A8A	N 1
A8A	N 1
A8A	N 1

TP59



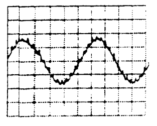
0,5V/div AC
0,5ms div

TP60



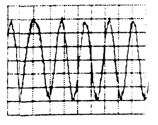
0,5V/div AC
0,5ms div

TP61



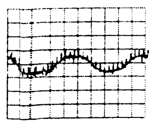
0,1V/div AC
0,2ms div

TP62



0,1V/div AC
0,2ms div

TP63



5 0V/div AC
0,2ms div

B1		A1
1	—— NC	7
2	—— IF - GND	6
3	← FM - MONO	5
4	—— FM - GND	4
5	→ NICAM / BTSC - L - OUT	3
6	—— GND	2
7	→ NICAM / BTSC - R - OUT	1

B2		A2
1	—— +8V	8
2	—— GND	7
3	—— NC	6
4	—— NC	5
5	→ SAP - AVAIL	4
6	—— STEREO - AVAIL	3
7	—— SAP - ON	2
8	→ STEREO / MONO	1

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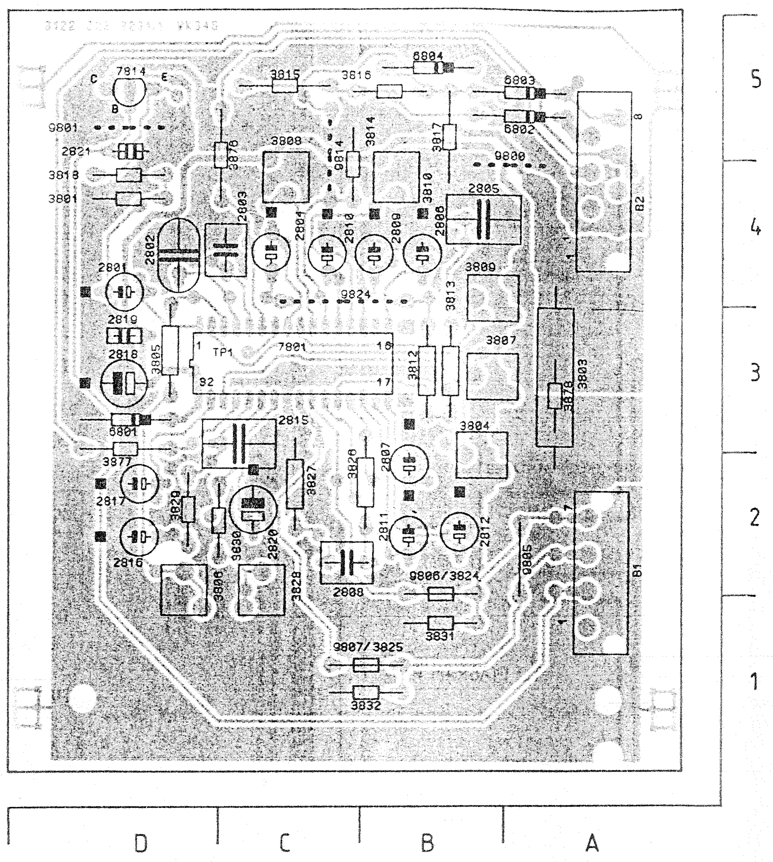
BTSC panel



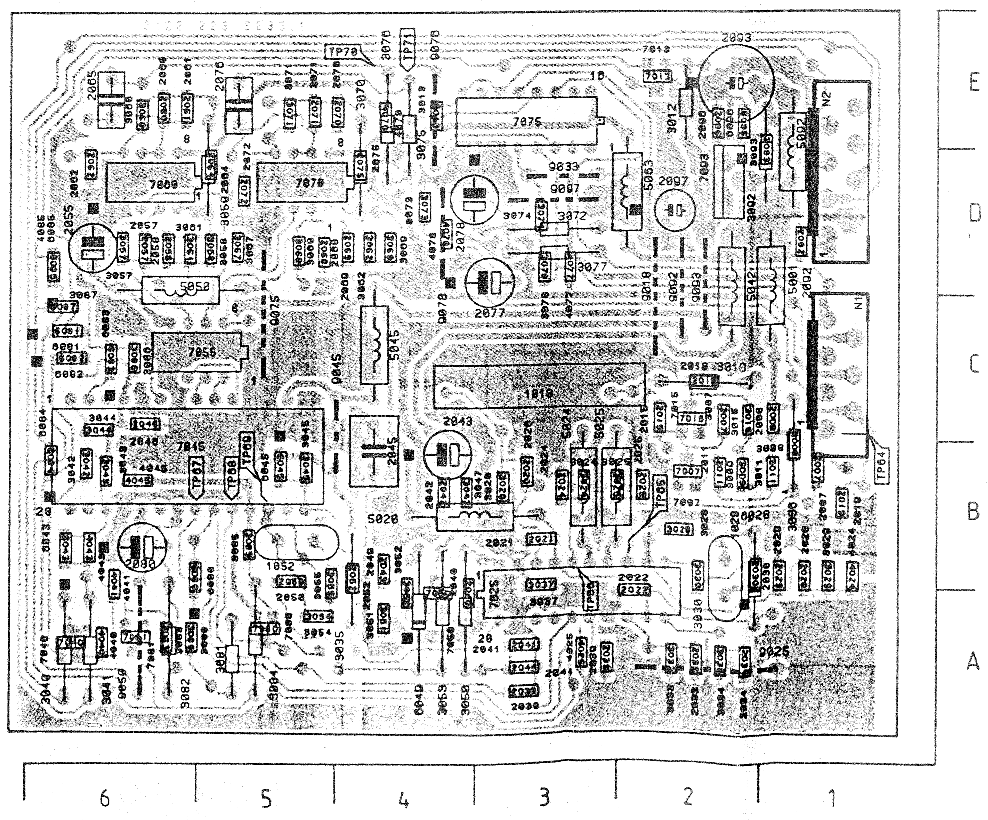
2801	D3
2802	D4
2803	D4
2804	C4
2805	B4
2806	B4
2807	B2
2808	C2
2809	C4
2810	C4
2811	B2
2812	B2
2815	D2
2816	D2
2817	D2
2818	D3
2819	D3
2820	D2
2821	D4
3801	D4
3803	A3
3804	B2
3805	D3
3806	D1
3807	B3
3808	C4
3809	B3
3810	C4
3812	B3
3813	B3
3814	C4
3815	C5
3816	C5
3817	B5
3818	D4
3824	B1
3825	C1
3826	C2
3827	C2
3828	C1
3829	D2
3830	D2
3831	B1
3832	C1
3876	D4
3877	D2
3878	A3
6801	D3
6802	B5
6803	B5
6804	B5
7801	C3
7814	D5
7814	D5
9800	B4
9801	D5
9805	B2
9806	B1
9807	C1
9814	C4
9824	C3
B1	A2
B2	A4

N1		A1
1	← SIF	7
2	—— IF - GND	6
3	← FM - MONO	5
4	—— FM - GND (AGND3)	4
5	→ NICAM / BTSC - L - OUT	3
6	—— GND	2
7	→ NICAM / BTSC - R - OUT	1

N2		A2
1	← +8V	8
2	—— GND	7
3	← SCL	6
4	↔ SDA	5
5	↠ NICAM - AVAIL	4
6	—— NC	3
7	—— NC	2
8	—— NC	1

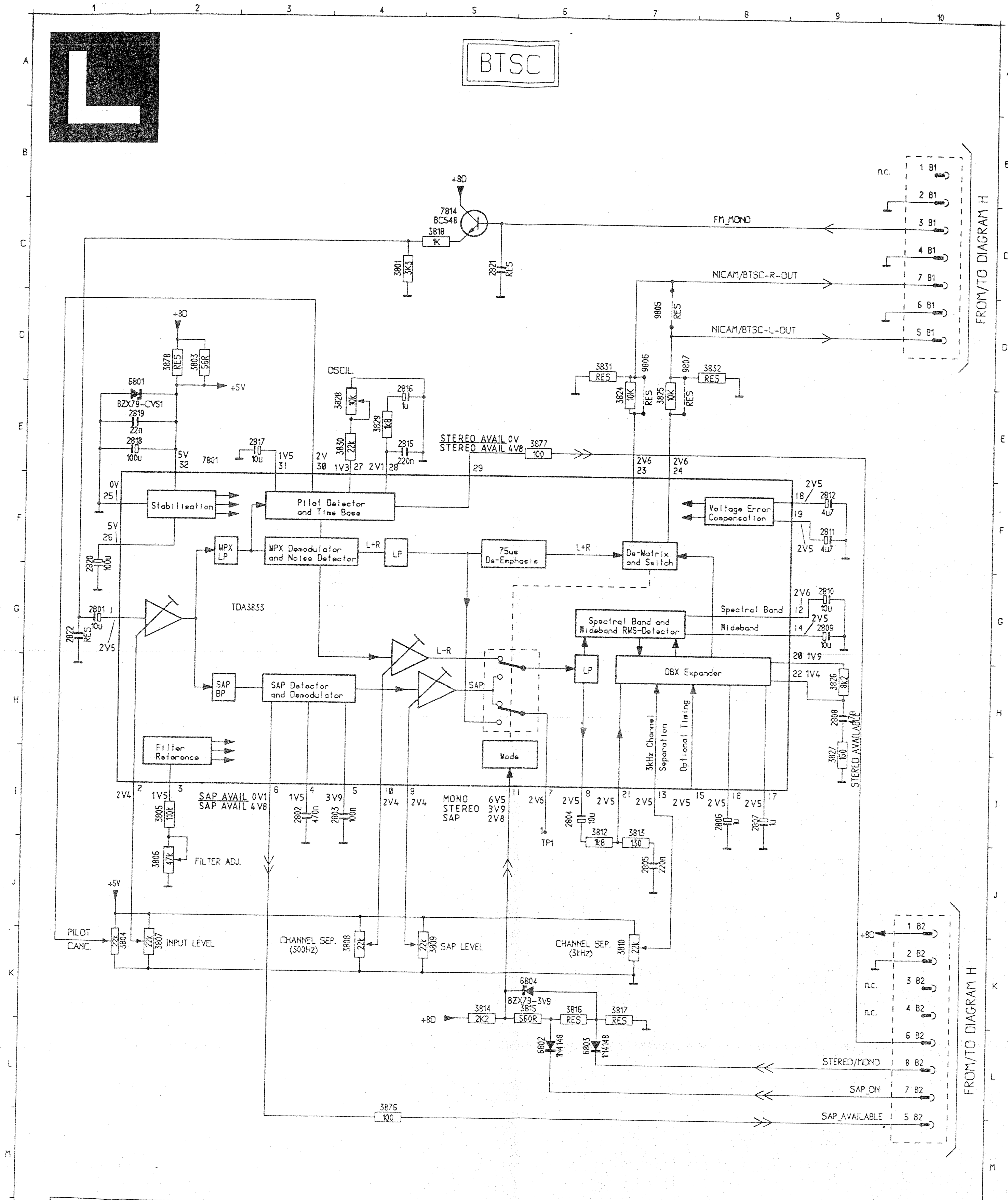
CL 46532008/11T
270194

NICAM panel



1018	C3
1028	B1
1052	B4
2007	B1
2008	C1
2011	B2
2015	C2
2018	C2
2019	B1
2020	B3
2021	B3
2022	A2
2024	B3
2025	B2
2028	B1
2029	B1
2030	B1
2033	A2
2034	A1
2038	A3
2039	A2
2040	A3
2041	A3
2042	B3
2043	B3
2044	A3
2045	B4
2046	C6
2049	B4
2050	A5
2052	B4
2055	D6
2057	D6
2058	D5
2060	E5
2061	E5
2062	D6
2064	D5
2065	E6
2068	D4
2069	D4
2070	E4
2071	E4
2072	D5
2075	D4
2076	E5
2077	D3
2078	D3
2080	B6
2092	D1
2093	E1
2096	E2
2097	D2
3006	B1
3007	C2
3008	B1
3009	B1
3011	B1
3012	E2
3013	E4
3015	C1
3018	C2
3020	B3
3024	B2
3025	B2
3028	B2
3029	B1
3030	B2
3033	A2
3034	A2
3035	B4
3037	A3
3040	A6
3041	A6
3042	B6
3043	B6
3044	C6
3045	B4
3047	B3
3050	A3
3051	A4
3052	A4
3053	A3
3054	A4
3055	A4
3057	D6
3058	D5
3059	D5
3060	E6
3061	D5
3062	D4
3067	D5
3068	D4
3069	D4
3070	D4
3071	E5
3072	D3
3073	D4
3074	D3
3075	E4
3076	E4
3077	D3
3078	D3
3080	A5
3081	A5
3082	A5
3083	A5
3084	A5
3085	B5
3086	C6
3087	C6
3092	D1
3093	D1
4024	B1
4025	A2
4040	A6
4041	A6
4043	B6
4045	B6
4070	E4
4077	D3
4078	D3
4078	D3
4085	D6
5001	D1
5020	B3
5024	B2
5025	B2
5042	D1
5045	C4
5050	D5
5063	D2
5092	D1
6028	B1
6043	B6
6045	B5
6049	A4
6080	B5
6081	C6
6082	C6
6083	C6
6084	B6
6085	D6
6096	E1
7007	B2
7013	E2
7015	C2
7025	A2
7040	A6
7045	B5
7050	A4
7055	C5
7060	D6
7070	D4
7075	E3
7080	A5
7081	A6
7093	D2
9018	C2
9025	A2
9033	D3
9045	C4
9050	A6
9075	C5
9076	E4
9078	D3
9092	D2
9093	D2
9097	D3
N1	C1
N2	D1

BTSC panel

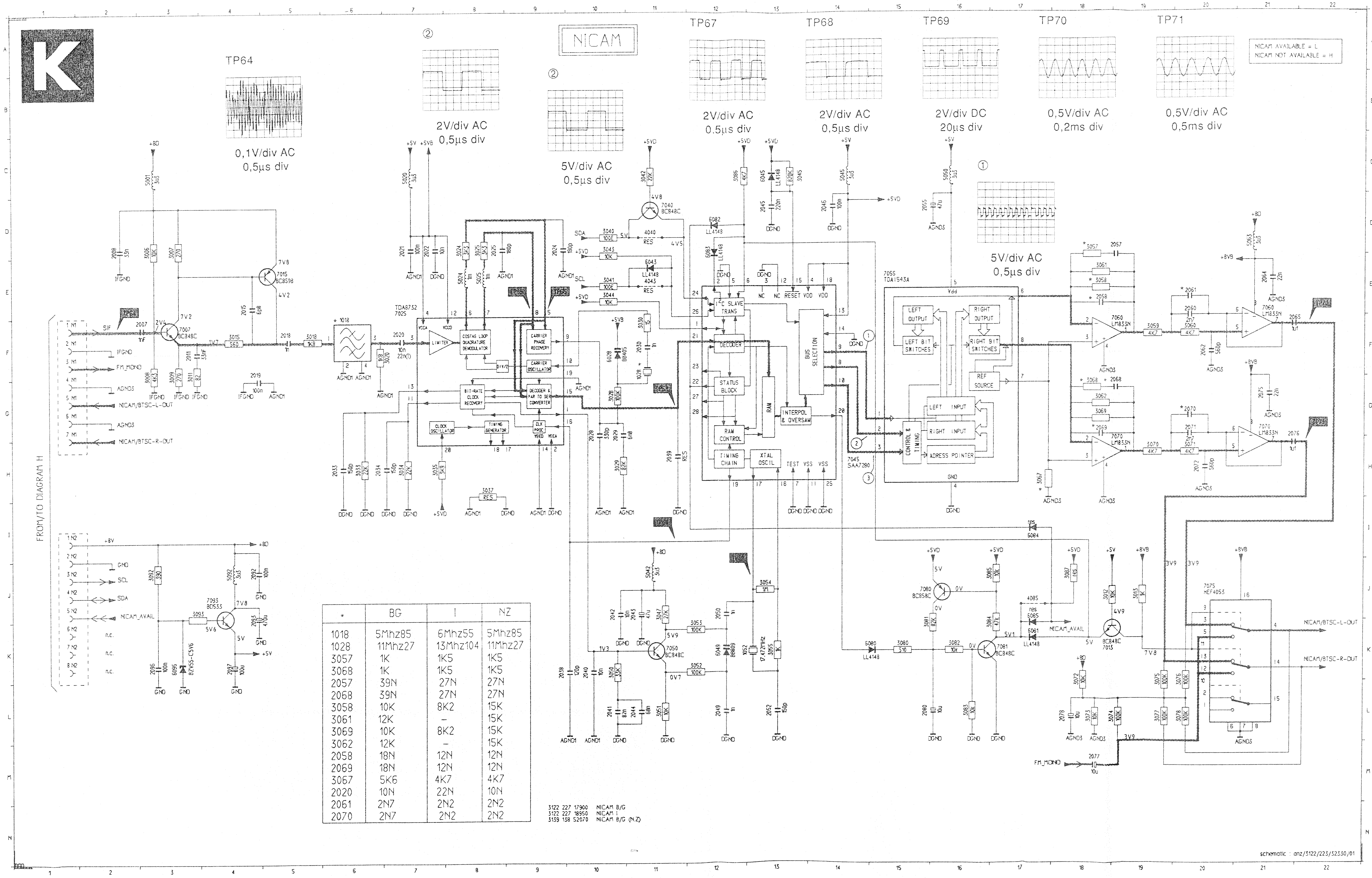

L
BTSC
+8D
7814
BC548
3818
1K
3801
3K3
2821
RES
FM_MONO
NICAM/BTSC-R-OUT
NICAM/BTSC-L-OUT
n.c.
1 B1
2 B1
3 B1
4 B1
7 B1
6 B1
5 B1
FROM/TO DIAGRAM H
9805
RES
3831
RES
9806
3824
10K
RES
3825
10K
9807
RES
3832
RES
3878
RES
3803
56R
+5V
6801
BZX79-C5V1
2819
22n
2818
100u
5V
32
7801
2817
10u
1V5
31
2V
30
OSCIL.
3828
10K
3830
22K
3829
1K8
2816
2815
220n
1V3 27
2V1 28
STEREO AVAIL 0V
STEREO AVAIL 4V8
3877
100
29
2V6
23
2V6
24
0V
25
5V
26
2820
100u
Stabilisation
Pilot Detector and Time Base
MPX LP
MPX Demodulator and Noise Detector
L+R
LP
75us De-Emphasis
L+R
De-Matrix and Switch
Voltage Error Compensation
2V5
18
2812
4u7
19
2811
2V5
4u7
TDA3833
2801
1
10u
2822
RES
2V5
Spectral Band and Wideband RMS-Detector
Spectral Band
Wideband
2V6
12
2810
10u
2V5
14
2809
10u
L-R
SAP
LP
DBX Expander
20 1V9
22 1V4
3826
8K2
2808
4u7
3827
150
STEREO AVAILABLE
SAP BP
SAP Detector and Demodulator
Filter Reference
Mode
3kHz Channel Separation
Optional Timing
2V4
2
1V5
3
SAP AVAIL 0V1
SAP AVAIL 4V8
6
1V5
4
3V9
5
10
2V4
9
2V4
MONO 6V5
STEREO 3V9
SAP 2V8
11
2V6
7
2V5
8
2V5
21
2V5
13
2V5
15
2V5
16
2V5
17
2802
470n
2803
100n
2804
10u
3812
1K8
3813
130
2805
220n
2806
1u
2807
1u
TP1
3805
100K
3806
4K7
FILTER ADJ.
+5V
PILOT CANC.
3804
22K
3807
22K
INPUT LEVEL
CHANNEL SEP. (300HZ)
3808
22K
3809
22K
SAP LEVEL
CHANNEL SEP. (3KHZ)
3810
22K
6804
BZX79-3V9
3814
2K2
3815
560R
3816
RES
3817
RES
+8D
6802
1N4148
6803
1N4148
+8D
1 B2
2 B2
3 B2
4 B2
6 B2
8 B2
7 B2
5 B2
STEREO/MONO
SAP_ON
SAP_AVAILABLE
3876
100
1 2 3 4 5 6 7 8 9 10
A B C D E F G H I J K L M N

2801	G	1
2802	I	3
2803	I	4
2804	I	6
2805	J	7
2806	I	8
2807	I	8
2808	H	9
2809	G	9
2810	G	9
2811	F	9
2812	F	9
2815	E	4
2816	E	4
2817	E	3
2818	E	1
2819	E	1
2820	F	1
2821	C	5
2822	G	1
3801	C	4
3803	D	2
3804	K	1
3805	I	2
3806	J	2
3807	K	2
3808	K	4
3809	K	5
3810	K	7
3812	I	7
3813	I	7
3814	K	5
3815	K	6
3816	K	6
3817	K	7
3818	C	5
3824	E	7
3825	E	7
3826	H	9
3827	H	9
3828	E	4
3829	E	4
3830	E	4
3831	D	7
3832	D	8
3876	L	4
3877	E	6
3878	D	2
6801	D	1
6802	L	6
6803	L	6
6804	K	6
7801	E	2
7814	C	5
9805	D	7
9806	D	7
9807	D	7
B1	B10	
B1	B10	
B1	C10	
B1	C10	
B1	D10	
B1	D10	
B1	C10	
B2	J10	
B2	K10	
B2	K10	
B2	K10	
B2	L10	
B2	L10	
B2	L10	
B2	L10	

STEREO AVAILABLE = L
STEREO NOT AVAILABLE = H
SAP NOT AVAILABLE = L
SAP NOT AVAILABLE = H

	STEREO/MONO 8B2	SAP_ON 7B2
STEREO	L	H
SAP	H	L
MONO	H	H

schematic : anz/3122/223/32310/01


K
NICAM
TP64
0,1V/div AC
0,5µs div
②
2V/div AC
0,5µs div
②
5V/div AC
0,5µs div
TP67
2V/div AC
0,5µs div
TP68
2V/div AC
0,5µs div
TP69
2V/div DC
20µs div
TP70
0,5V/div AC
0,2ms div
TP71
0,5V/div AC
0,5ms div
①
5V/div AC
0,5µs div
TDA8732
7025
7055
TDA1543A
7045
SAA7280
7050
LM833N
7060
LM833N
7070
LM833N
7075
HEF4053
LIMITER
COSTAS LOOP QUADRATURE DEMODULATOR
CARRIER PHASE RECOVERY
CARRIER OSCILLATOR
BIT-RATE CLOCK RECOVERY
DECODER & PAR TO SER CONVERTER
CLOCK OSCILLATOR
TIMING GENERATOR
CLK PROC
I²C SLAVE TRANS
DECODER
STATUS BLOCK
RAM CONTROL
RAM
BUS SELECTION
INTERPOL & OVERSAM
TIMING CHAIN
XTAL OSCIL
LEFT OUTPUT
RIGHT OUTPUT
LEFT BIT SWITCHES
RIGHT BIT SWITCHES
REF SOURCE
LEFT INPUT
RIGHT INPUT
ADRESS POINTER
CONTROL & TIMING
FROM/TO DIAGRAM H
SIF
FM_MONO
NICAM/BTSC-L-OUT
NICAM/BTSC-R-OUT
NICAM_AVAIL
SCL
SDA
n.c.
17,472MHz

NICAM AVAILABLE = L
NICAM NOT AVAILABLE = H

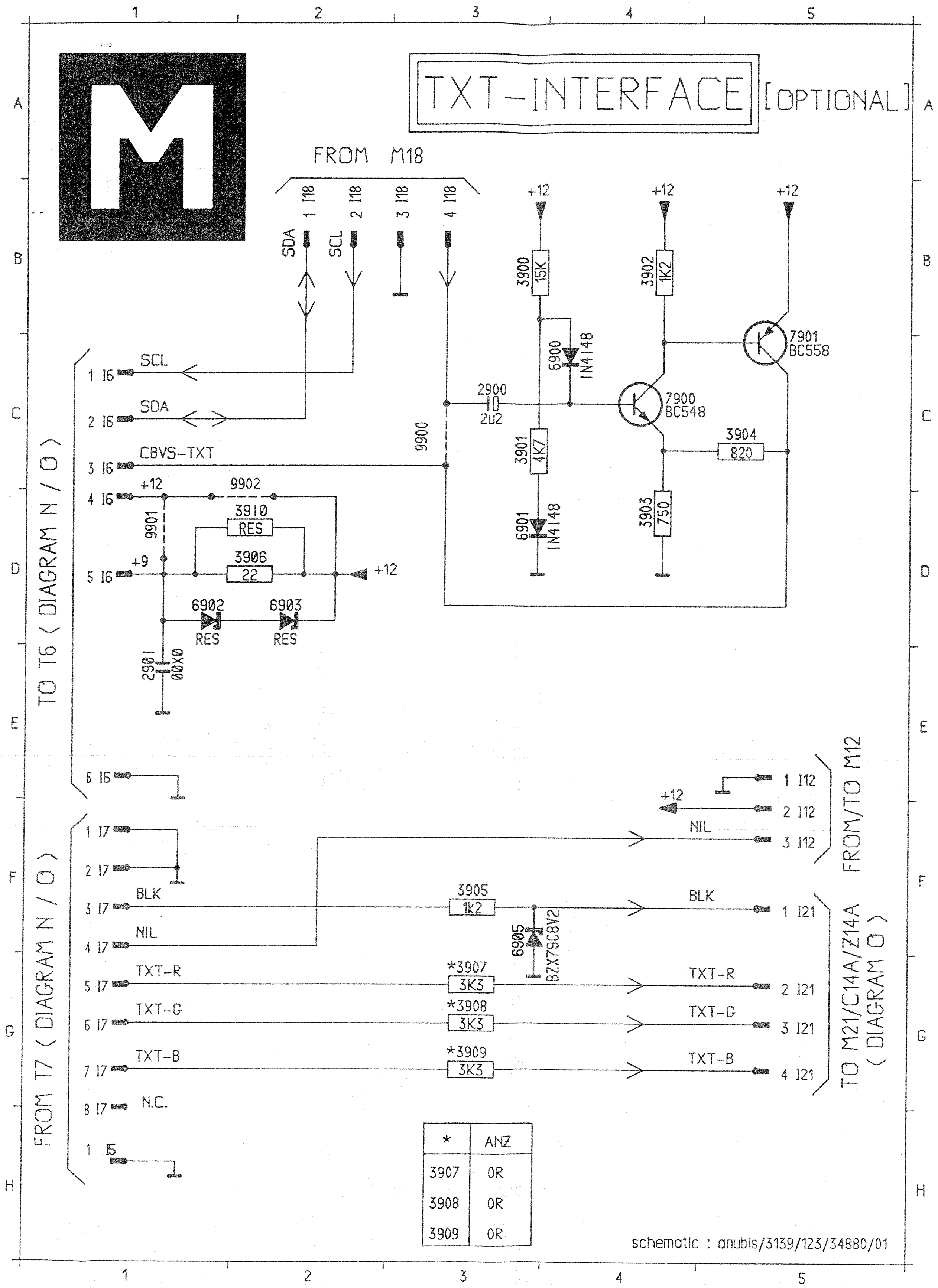
*	BG	I	NZ
1018	5Mhz85	6Mhz55	5Mhz85
1028	11Mhz27	13Mhz104	11Mhz27
3057	1K	1K5	1K5
3068	1K	1K5	1K5
2057	39N	27N	27N
2068	39N	27N	27N
3058	10K	8K2	15K
3061	12K	–	15K
3069	10K	8K2	15K
3062	12K	–	15K
2058	18N	12N	12N
2069	18N	12N	12N
3067	5K6	4K7	4K7
2020	10N	22N	10N
2061	2N7	2N2	2N2
2070	2N7	2N2	2N2

3122 227 17900 NICAM B/G
3122 227 18950 NICAM I
3139 138 52070 NICAM B/G (N.Z)

schematic : anz/3122/223/52330/01

1018	F 6
1028	F11
1052	K12
2007	F 3
2008	D 2
2011	F 3
2015	E 4
2018	F 5
2019	F 4
2020	F 7
2021	D 7
2022	D 7
2024	D 9
2025	D 8
2028	G10
2029	G10
2030	F11
2033	H 6
2034	H 6
2038	K 9
2039	H11
2040	K10
2041	L10
2042	J10
2043	J11
2044	L11
2045	D13
2046	D14
2049	L12
2050	J12
2052	L13
2055	D15
2057	D19
2058	E18
2060	E20
2061	E20
2062	F20
2064	E21
2065	F21
2068	G19
2069	G18
2070	G20
2071	G20
2072	H20
2075	G21
2076	G21
2077	M18
2078	L18
2080	L15
2092	J 4
2093	J 4
2096	K 3
2097	K 4
3006	D 3
3007	D 3
3008	F 3
3009	F 3
3011	F 3
3012	J18
3013	J19
3015	F 4
3018	F 5
3020	F 7
3024	D 8
3025	D 8
3028	G10
3029	H10
3030	F11
3033	H 6
3034	H 7
3035	H 7
3037	H 8
3040	D10
3041	E10
3042	C11
3043	D10
3044	E10
3045	C13
3047	J11
3050	K10
3051	L11
3052	K12
3053	K12
3054	J13
3055	K13
3057	D18
3058	E18
3059	F19
3060	F20
3061	E18
3062	G18
3067	H17
3068	G18
3069	G18
3070	H19
3071	H20
3072	K18
3073	L18
3074	L19
3075	K19
3076	K20
3077	L19
3078	L20
3080	K15
3081	K15
3082	K16
3083	L16
3084	K17
3085	J17
3086	C12
3087	J18
3092	J 3
3093	J 3
4040	D11
4043	E11
4085	J17
5001	C 3
5020	C 7
5024	E 8
5025	E 8
5042	J11
5045	C14
5050	C16
5063	D21
5092	J 4
6028	F10
6043	E11
6045	C13
6049	K12
6080	K15
6081	K17
6082	D12
6083	D12
6084	I17
6085	J17
6096	K 3
7007	F 3
7013	K18
7015	E 5
7025	E 7
7040	D11
7045	H14
7050	K11
7055	E15
7060	E21
7060	F18
7070	H18
7070	G21
7075	J20
7080	J16
7081	K17
7093	J 4
N1	F 1
N1	F 1
N1	F 1
N1	F 1
N1	G 1
N1	G 1
N1	G 1
N2	I 1
N2	I 1
N2	J 1
N2	J 1
N2	J 1
N2	K 1
N2	K 1
N2	K 1

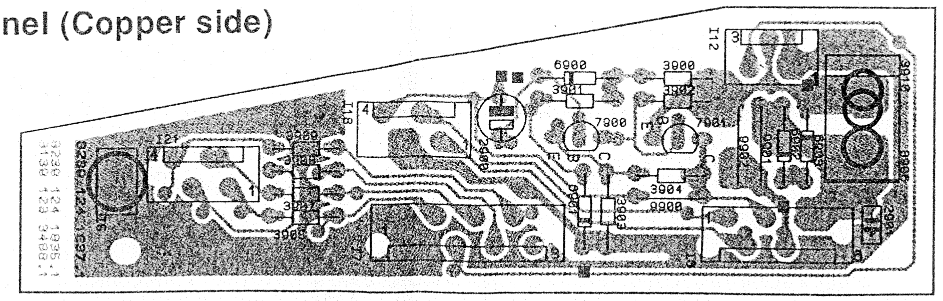
TXT interface panel (FLOF ECCT) /


M
TXT-INTERFACE [OPTIONAL]
FROM M18
SDA 1 I18
SCL 2 I18
3 I18
4 I18
+12
+12
+12
3900 15K
3902 1K2
6900 1N4148
7901 BC558
7900 BC548
2900 2u2
3904 820
3901 4K7
6901 1N4148
3903 750
9900
SCL
SDA
CBVS-TXT
+12
9902
3910 RES
3906 22
9901
+9
+12
6902 RES
6903 RES
2901 00X0
1 I6
2 I6
3 I6
4 I6
5 I6
6 I6
TO T6 (DIAGRAM N / O)
+12
NIL
1 I12
2 I12
3 I12
FROM/TO M12
1 I7
2 I7
3 I7
4 I7
5 I7
6 I7
7 I7
8 I7
BLK
NIL
TXT-R
TXT-G
TXT-B
N.C.
1 I5
3905 1k2
6905 BZX79C8V2
*3907 3K3
*3908 3K3
*3909 3K3
BLK
TXT-R
TXT-G
TXT-B
1 I21
2 I21
3 I21
4 I21
TO M21/C14A/Z14A (DIAGRAM O)
FROM T7 (DIAGRAM N / O)
A
B
C
D
E
F
G
H
1
2
3
4
5
schematic : anubis/3139/123/34880/01

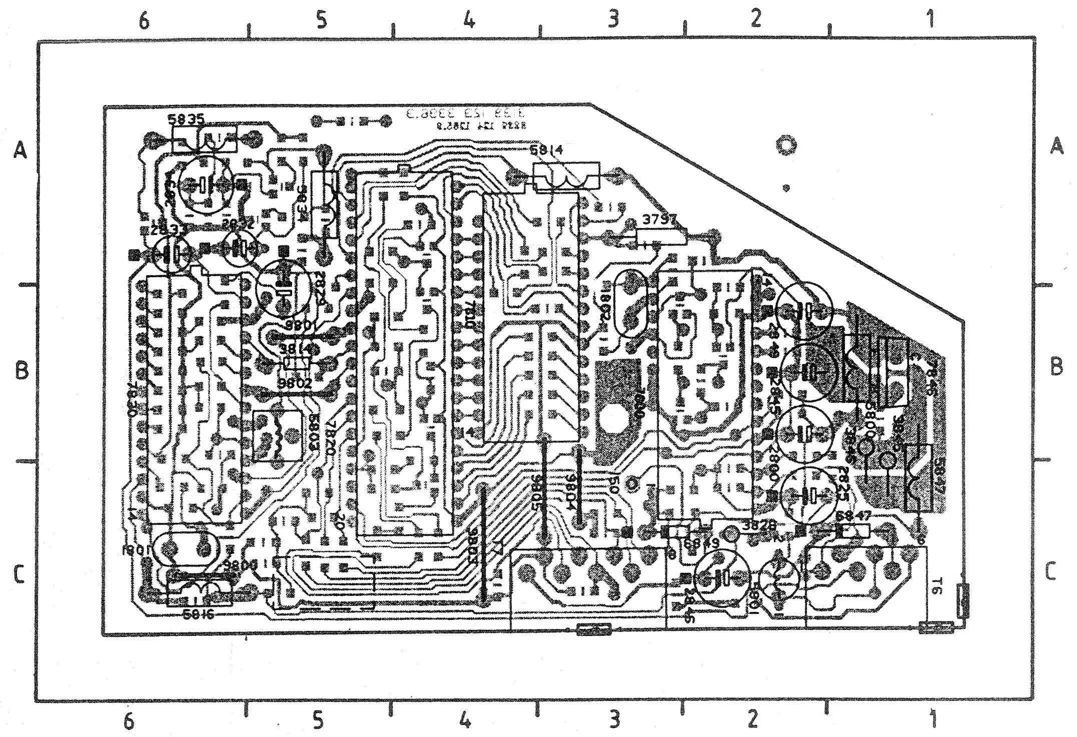
*	ANZ
3907	0R
3908	0R
3909	0R

2900	C 3
2901	E 1
3900	B 3
3901	C 3
3902	B 4
3903	D 4
3904	C 5
3905	F 3
3906	D 2
3907	G 3
3908	G 3
3909	G 3
3910	D 2
6900	C 4
6901	D 3
6902	D 1
6903	D 2
6905	F 3
7900	C 4
7901	C 5
9900	C 3
9901	D 1
9902	C 2
I12	E 5
I12	F 5
I12	F 5
I18	B 2
I18	B 2
I18	B 3
I18	B 3
I21	F 5
I21	G 5
I21	G 5
I21	G 5
I5	H 1
I6	C 1
I6	C 1
I6	C 1
I6	D 1
I6	D 1
I6	E 1
I7	F 1
I7	F 1
I7	F 1
I7	F 1
I7	G 1
I7	G 1
I7	G 1
I7	H 1

TXT interface panel (Copper side)

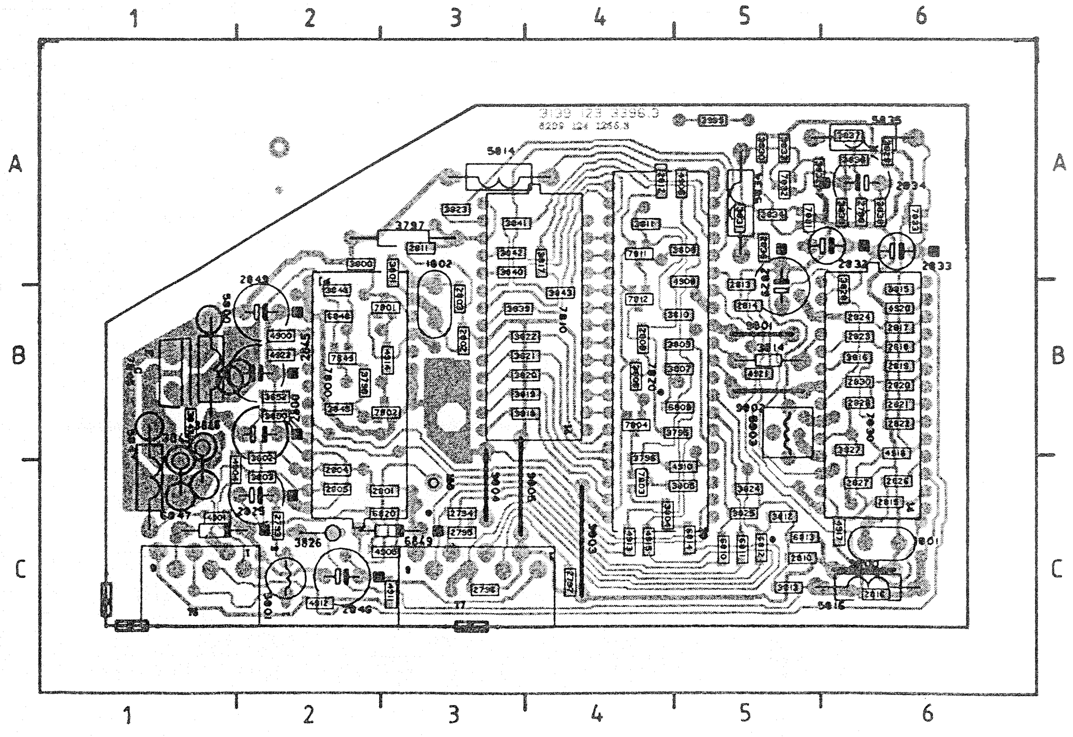

6900
3900
3902
7900
7901
3904
9900
3903
3905
I12
I18
I21
3910

Panel interface TXT (FLOF ECCT)

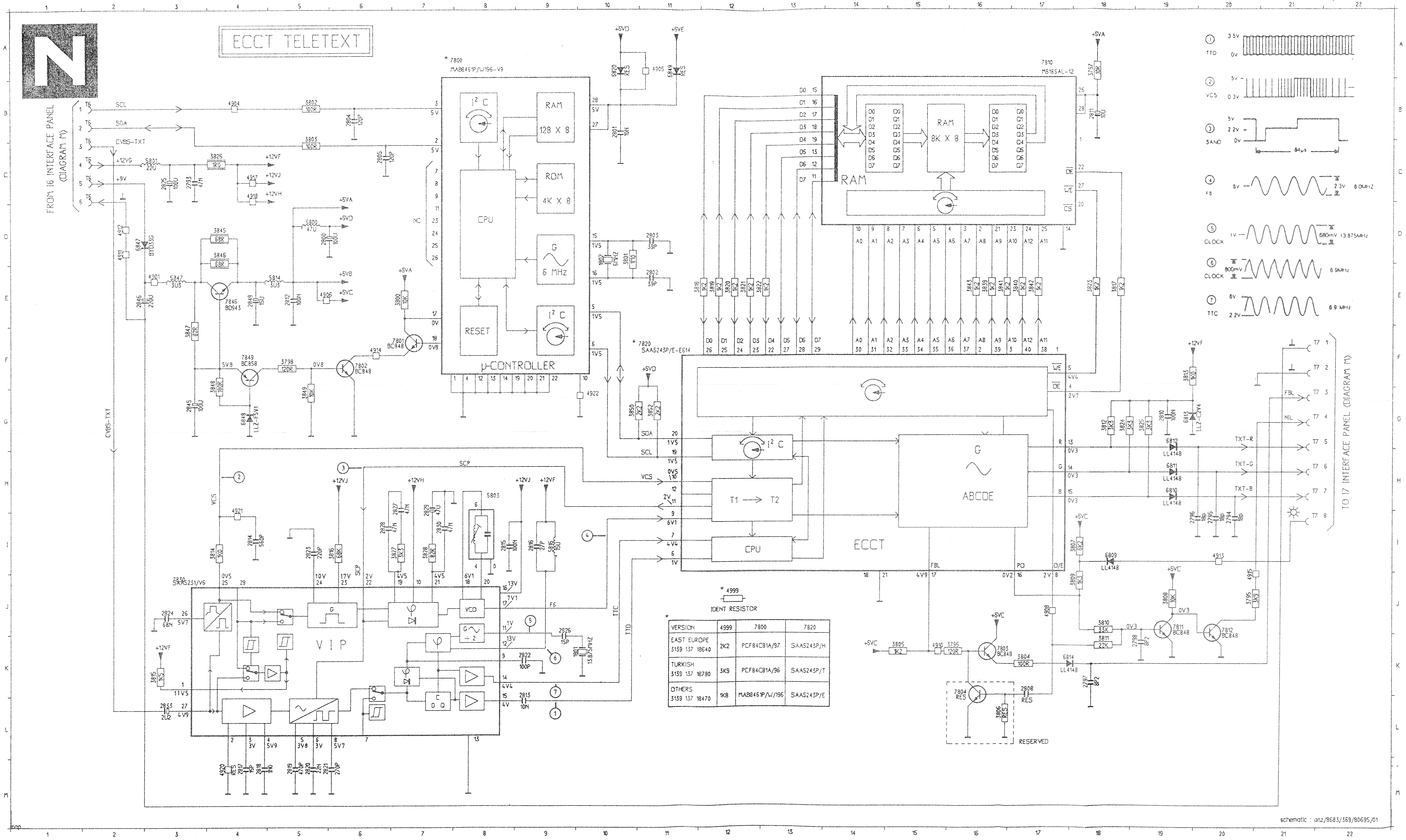

6 5 4 3 2 1
A
B
C
5835
5814
3797
2833
9802
7830
1801
9800
5816
3826
6847
5847
T6

1801	C6	2814	B5	2834	A6	3811	A4	3830	A5	3850	B2	5800	B1
1802	A3	2815	C6	2836	A5	3812	C5	3831	A5	3852	B2	5801	C2
2793	C2	2816	C6	2846	C2	3813	C5	3832	A5	3999	A5	5803	B5
2794	C3	2817	B6	2849	B2	3814	B5	3833	A5	4900	B2	5814	A3
2795	C3	2818	B6	3795	B4	3815	B6	3834	A5	4901	C1	5816	C6
2796	C3	2819	B6	3796	C4	3816	B6	3835	A6	4904	C1	5834	A5
2797	C4	2820	B6	3797	A3	3817	A4	3836	A6	4905	C2	5835	A6
2798	A6	2821	B6	3798	B2	3818	B3	3837	A6	4906	A5	5847	B1
2800	B2	2822	B6	3800	A2	3819	B3	3838	A6	4908	B5	6809	B4
2801	C2	2823	B6	3801	A3	3820	B3	3839	B3	4910	C4	6810	C5
2802	B3	2824	B6	3802	B2	3821	B3	3840	A3	4911	C3	6811	C5
2803	B3	2825	C2	3803	C2	3822	B3	3841	A3	4912	C2	6812	C5
2804	C2	2826	C6	3804	C4	3823	A3	3842	A3	4913	C4	6813	C5
2805	C2	2827	C6	3805	C4	3824	C5	3843	B4	4915	C4	6814	C5
2808	B4	2828	B6	3806	B4	3825	C5	3845	B1	4917	C6	6820	C2
2810	C5	2829	A5	3807	B4	3826	C2	3846	B1	4918	B6	6847	C1
2811	A3	2830	B6	3808	A5	3827	B6	3847	B1	4920	B6	6848	B2
2812	A4	2832	A6	3809	B4	3828	B6	3848	B2	4921	B5	6849	C3
2813	B5	2833	A6	3810	B4	3829	A6	3849	B2	4922	B2	7800	B2

7801	B2	9805	C4
7802	B2	T6	C1
7803	C4	T7	C3
7804	B4		
7810	B4		
7811	A4		
7812	B4		
7820	B4		
7830	B6		
7831	A5		
7832	A5		
7833	A6		
7846	B1		
7849	B2		
9800	C6		
9801	B5		
9802	B5		
9803	C4		
9804	C3		


1 2 3 4 5 6
A
B
C
5814
3797
1802
2849
2834
2833
5835
5816
T7

1801	K10
1802	D10
2793	C 3
2794	I20
2795	I20
2796	I19
2797	K18
2798	K19
2800	D 5
2801	B10
2802	E11
2803	D11
2804	B 6
2805	C 6
2808	K17
2810	G19
2811	B18
2812	E 5
2813	L 9
2814	I 4
2815	I 8
2816	I 9
2817	M 4
2818	M 4
2819	M 5
2820	M 5
2821	M 5
2822	K 9
2823	I 5
2824	J 3
2825	C 3
2826	J 9
2827	H 7
2828	I 6
2829	H 7
2830	I 7
2833	L 3
2845	G 3
2846	E 2
2849	E 4
3795	J20
3796	K16
3797	A18
3798	F 5
3800	E 7
3801	D10
3802	B 5
3803	B 5
3804	K17
3805	K15
3806	L16
3807	I18
3808	J19
3809	J18
3810	J18
3811	K18
3812	G18
3813	F19
3814	I 4
3815	K 3
3816	I 6
3817	E18
3818	E11
3819	E12
3820	E12
3821	E12
3822	E12
3823	E18
3824	G18
3825	G19
3826	C 4
3827	I 7
3828	I 7
3839	E16
3840	E17
3841	E16
3842	E17
3843	E16
3845	D 4
3846	D 4
3847	F 3
3848	F 4
3849	G 5
3850	G10
3852	G11
4901	E 3
4904	B 4
4905	A11
4906	E 5
4908	J17
4910	K15
4911	D 2
4912	D 2
4913	I20
4914	F 6
4915	J20
4917	C 4
4918	C 4
4920	M 4
4921	I 4
4922	G10
5800	D 5
5801	C 3
5803	H 8
5814	E 5
5816	I 9
5847	E 3
6809	I18
6810	H19
6811	H19
6812	G19
6813	G19
6814	K17
6820	A10
6847	D 2
6848	G 4
6849	A11
7800	A 7
7801	F 7
7802	F 6
7803	K16
7804	K16
7810	A17
7811	J19
7812	J20
7820	F11
7830	J 3
7846	E 4
7849	F 4
T6	B 2
T6	B 2
T6	C 2
T6	C 2
T6	C 2
T6	C 2
T7	F21
T7	F21
T7	G21
T7	G21
T7	G21
T7	H21
T7	H21
T7	I21


N
ECCT TELETEXT
FROM 16 INTERFACE PANEL (DIAGRAM M)
TO 17 INTERFACE PANEL (DIAGRAM M)
* 7800
MAB8461P/W196-V9
I²C
RAM
128 X 8
ROM
4K X 8
CPU
G
6 MHz
RESET
µ-CONTROLLER
7810
M5165AL-12
RAM
8K X 8
* 7820
SAA5243P/E-ES14
T1 → T2
ABCDE
ECCT
7830
SAA5231/V6
VIP
VCO
SCL
SDA
CVBS-TXT
CVBS-TXT
VCS
SCP
TTC
TTD
F6
FBL
NIL
TXT-R
TXT-G
TXT-B
+5VA
+5VB
+5VC
+5VD
+5VE
+12VF
+12VH
+12VJ
+12VG
+9V
7845
BD943
7849
BC858
7801
BC848
7802
BC848
7803
BC848
7804
RES
7811
BC848
7812
BC848
6848
LLZ-F5V1
6847
BYD33G
6812
LL4148
6811
LL4148
6810
LL4148
6809
LL4148
6814
LL4148
6813
LLZ-C2V4
RESERVED
① TTD 3.5V 0V
② VCS 5V 0.3V
③ SAND 5V 2.2V 0V 64µs
④ F6 6V 2.3V 6.0MHZ
⑤ CLOCK 1V 680mV 13.875MHz
⑥ CLOCK 800mV 6.9MHz
⑦ TTC 6V 2.2V 6.9 MHz
schematic : anz/8683/359/80695/01

* 4999
IDENT RESISTOR

*

VERSION	4999	7800	7820
EAST EUROPE 3139 137 18640	2K2	PCF84C81A/97	SAA5243P/H
TURKISH 3139 137 18780	3K9	PCF84C81A/96	SAA5243P/T
OTHERS 3139 137 18470	1K8	MAB8461P/W/196	SAA5243P/E

I7		T7
1	— NC	8
2	← B	7
3	← G	6
4	← R	5
5	← NIL	4
6	← BLK	3
7	— GND	2
8	— GND	1

I21		C14A
1	→ BLANKING	4
2	→ TXT R	3
3	→ TXT G	2
4	→ TXT B	1

I21	FOR NO MULTI - SOUND	M21
1	→ BLANKING	4
2	→ TXT R	3
3	→ TXT G	2
4	→ TXT B	1

I18		M18
1	↔ SDA	4
2	← SCL	3
3	— GND	2
4	← CVBS - TXT	1

I12		M12
1	— GND	3
2	← +12V / +5.5V	2
3	→ NIL	1

I6		T6
1	→ SCL	
2	↔ SDA	
3	→ CVBS - TXT	
4	→ +12V	
5	→ +9V	
6	— GND	

CL 46532008/11U
270194

T7		I7
1	— GND	8
2	— GND	7
3	→ BLK	6
4	→ NIL	5
5	→ R	4
6	→ G	3
7	→ B	2
8	— NC	1

T6		I6
1	← SCL	1
2	↔ SDA	2
3	← CVBS - TXT	3
4	← +12V	4
5	← +9V	5
6	— GND	6

CL 46532008/11V
270194

7. Electrical adjustments

1. Settings on the carrier panel

1.1 +95V / +115V power supply voltage

Connect a multimeter (DC) across C2531. Set brightness at mid position and contrast at maximum. Apply a pattern generator with a colour bar. Adjust potentiometer **3512** to +95V ± 0.5V, DC / +115 ± 0.5V.

1.2 Horizontal centring

Is adjusted with potentiometer 3420.

1.3 Picture width (horizontal amplitude) 25" only

Is adjusted with potentiometer 3484.

1.4 East west correction 25" only

Is adjusted with potentiometer 3489.

1.5 Vertical centring

Is adjusted with switch 3408.

1.6 Picture height

Is adjusted with potentiometer 3410.

1.7 Focusing

Is adjusted with the focusing potentiometer in the line output transformer 5445 (if necessary brightness at minimum and contrast at maximum).

1.8 RF AGC adjustment

Connect pattern generator (e.g. PM5518) to the aerial input with RF signal amplitude = 1 mV. Connect a multimeter (DC) at pin 5 of tuner. Adjust **R3264** so that voltage at pin 5 of tuner is 7.5 ± 0.5V DC.

1.9 Picture demodulator adjustment

Connect a pattern generator (e.g. PM5518) with a cross hatch. Connect an oscilloscope (1μs/DIV) to pin 7 of IC7225 and adjust **L5260** so that the overshoot response is minimum, see Fig. 7.1.
Select a colour bar signal and verify if the picture is alright.

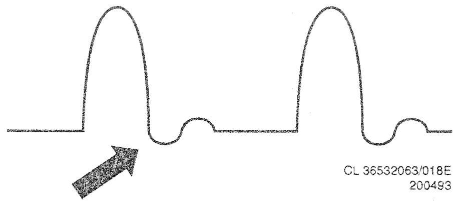


Fig. 7.1

1.10 Adjustment of 34.4 MHz carrier trap (for full multi sets only, so -/56/57/69/70/93)

Switch off the set.
Disconnect pin 17 of the tuner by desoldering the V-cut at pin 17 of the tuner. Switch on the set and force it to M-reception via the second install menu. Connect a signal generator at 34.4 MHz at pin 4 of plug M3. Connect an oscilloscope (1μs/DIV) to pin 1 of the SAW filter 1015 and adjust **L5020** for minimum amplitude of the signal.
Resolder the V-cut to reconnect the tuner.

2. Settings on the CRT panel

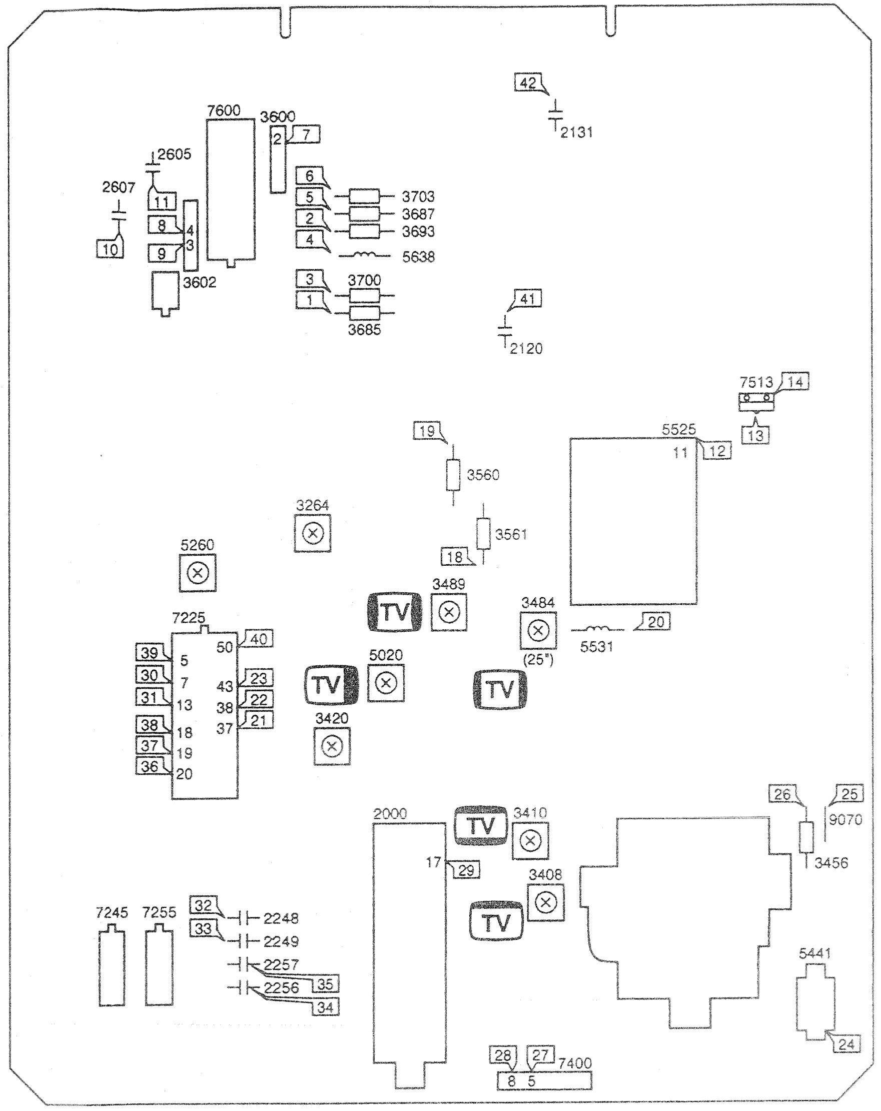
2.1 VG2 cut off adjustment

Connect a pattern generator (e.g. PM5518) and set it to white raster pattern.
Set contrast and the Vg2 potentiometer (in line output transformer) minimum. Adjust with brightness control the top video level at pin 4 of plug L7 (on CRT panel) to the same voltage level as the emitter of transistor of transistor TS7325.
Note: store this value as Personal Preference (PP)!!
Pre-adjust the black level preset potentiometers of each gun, **3307** (B), **3320** (G) and **3334** (R), to give a black level of 140V on pins 11, 6 and 8 on the picture tube socket.
Remove probe of voltmeter or oscilloscope.
Adjust the Vg2 potentiometer until one of the colours just becomes visible. Adjust the **other** two guns by means of the corresponding resistors (3307, 3320 or 3334) until the colours just become visible or until the picture is white.

2.2 White-D adjustment

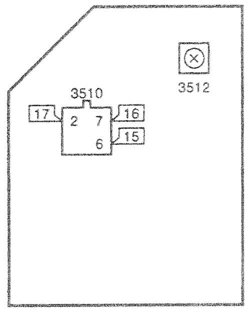
Use the same signal as prescribed in 2.1. Adjust contrast to such a level that red is good visible.
Adjust potentiometers **3313** (B) and **3314** (G) to have a correct White-D picture.
Note: Store nominal values for contrast, saturation and brightness as Personal Preference when settings 2.1 and 2.2 have been carried out.

MAIN CARRIER (component side)


42
2131
7600
3600
2
7
2605
2607
11
8
4
3
9
10
3602
6
5
2
4
3703
3687
3693
5638
3
1
3700
3685
41
2120
7513
14
13
5525
11
12
19
3560
3561
18
3264
5260
3489
3484
(25")
5531
20
TV
5020
3420
7225
39 5
30 7
31 13
38 18
37 19
36 20
50 40
43 23
38 22
37 21
2000
3410
17
29
3408
26
25
9070
3456
5441
24
7245
7255
32
33
2248
2249
2257
2256
35
34
28
27
7400
8 5

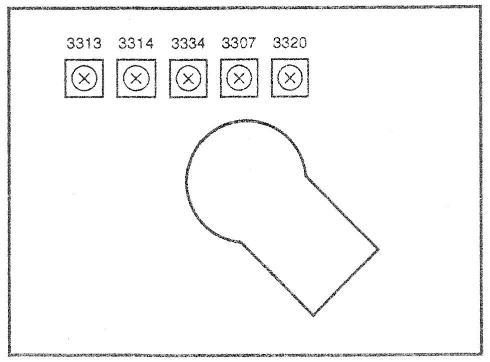
CL 36532063/18A
020294

POWER SUPPLY
CONTOL PANEL

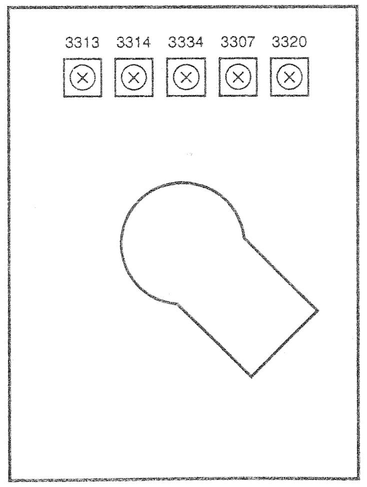

3510
17
2
7
16
6
15
3512

CL 36532063/18B
270194

CRT PANEL 21"


3313
3314
3334
3307
3320

CRT PANEL 25"


3313
3314
3334
3307
3320

CL 46532010/016
270194

3. Adjusting the picture tube

Note:
The colour purity and convergence adjustments described hereafter need only be carried out if a completely new adjustment is called for or if a new picture tube has been fitted.
Otherwise, for instance after replacing the deflection unit, it will not be necessary to remove the rubberwedges (G in Fig. 4). corrections by means of the multi-pole unit will then suffice.

3.1 Colour purity (see Fig. 4)

1. Loosen fixing screw "F" of the deflection unit a few turns.
2. Move the deflection unit and remove the three rubber wedges "G".
3. Slide the deflection unit forward as far as possible against the glass of the picture tube cone and tighten fixing screw "F" in such a manner that the deflection unit can be moved with some friction.
4. Place the multi-pole unit in the position shown, turn screw "A" and turn securing ring 'B" counter clockwise.
5. Let the apparatus face East or West and switch on the set.
   Supply a cross-hatch pattern and set brightness control to maximum. Allow for a warming-up time of 10 minutes.
6. Adjust the static convergence, using tabs "C" and "D" (if necessary, see procedure II).
7. Switch off the green and the blue gun by disconnecting the resistors 3316 and 3303.
8. By turning the colour purity rings with tabs "E", the vertical red bar is adjusted nearest to the centre of the screen, while the central horizontal line should be as straight as possible.
9. Supply a white pattern signal and check that the red bar is in the centre of the screen. If not, switch on the cross-hatch pattern again and move the red bar in the right direction, taking care that the picture does not move too much in vertical direction.
10. Supply the white pattern signal and move the deflection unit until the whole picture surface is uniformly red.
11. Switch on the green and the blue guns by reconnecting R3316 and R3303. No colour patches should occur in the white picture now obtained. If necessary a minor correction can be made by slightly turning the colour purity rings "E" and/or slightly moving the deflection unit.
12. Tighten screw "F" tightly.
13. Proceed to the static and dynamic convergence adjustments.

3.2 Static convergence (see Fig. 4)

1. Supply a cross-hatch pattern and allow for a warming-up time of 10 minutes.
2. Switch off the green gun by disconnecting resistor 3316 and turn locking ring "B" anticlockwise.
3. By turning the four-pole rings with tabs "C", the red and blue cross-hatch patterns in the centre of the screen are placed on top of each other.
4. Switch on the green gun by reconnecting 3316 and switch-off the blue gun by disconnecting resistor 3303.
5. By turning the six-pole rings with tabs "D" the red and green cross-hatch patterns in the centre of the screen are placed on top of each other.
6. Switch-on the blue gun again and tighten ring "B" again.

3.3 Dynamic convergence (see Fig. 5 and 6)

Remark:
The dynamic convergence is achieved by vertical and horizontal tilting of the deflection unit. To secure the right position of the deflection unit, three rubber wedges are fitted between the glass of the picture tube and the deflection unit, as shown in Fig. 5d or 6d.

1. First check the colour purity and switch off the green gun by disconnecting resistor.
2. Supply a cross-hatch pattern and switch off the green gun by disconnecting resistor 3316.
3. Eliminate the crossing of the central horizontal blue and red line and the crossing of the central vertical blue and red line, by vertical tilting of the deflection unit. If the position of the deflection unit is correct, then place rubber wedge 1, paper strip not removed, at the top (Fig. 5a) or at the bottom (Fig. 6a). Fig. 5a is applicable if the deflection unit is tilted upwards and Fig. 6a if the unit is tilted downwards.
4. by horizontal tilting of the deflection unit, now both the horizontal blue and red lines in the upper and lower halves of the picture and the vertical blue and red lines on the left and right hand side of the picture are placed on top of the other.
   If the position of the deflection unit is correct, then place wedges 2 and 3 with paper strips removed, as shown in Fig. 5b or 6b. Firmly press the adhesive sides of these wedges against the glass of the picture tube.
5. Now place wedge 4 as shown in Fig. 5c or 6c and press on the adhesive side firmly.
6. Remove wedge 1, to obtain the condition shown in Fig. 5d or 6d.
7. Switch on the green gun by reconnecting 3316.

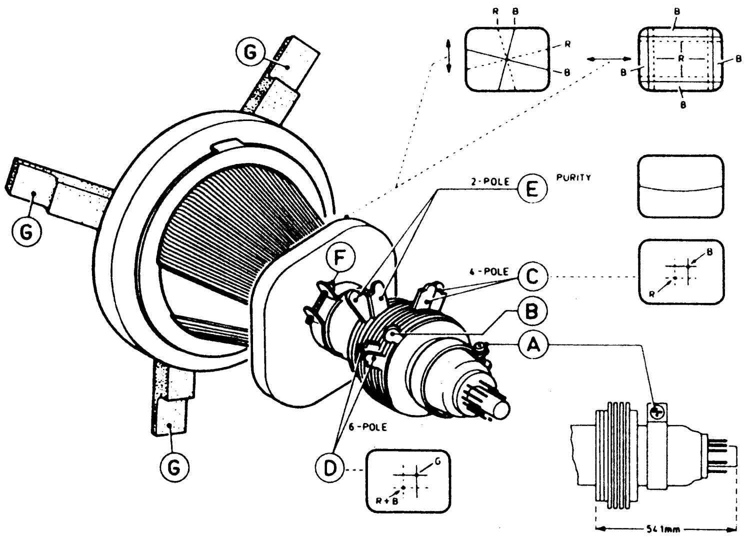


Fig. 4

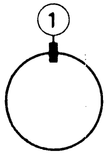


Fig. 5a

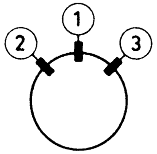


Fig. 5b

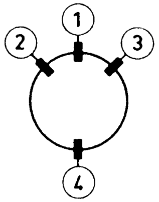


Fig. 5c

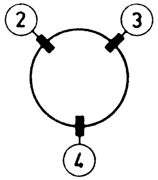


Fig. 5d

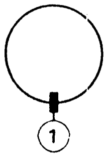


Fig. 6a

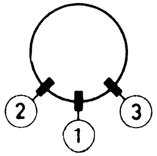


Fig. 6b

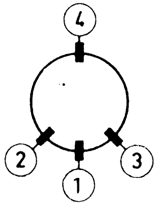


Fig. 6c

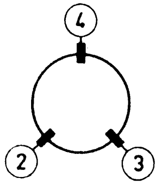


Fig. 6d

38 817 E12

Electrical adjustments

4. Settings on the QSS panel

4.1 38.9 MHz IF demodulation adjustment

Connect a pattern generator (e.g. PM5518) to the tuner with a sound carrier but with no audio modulation on the carrier. Connect an oscilloscope to pin 1 Q4 (SIF output). Adjust coil L5003 to get minimal video ripple.

4.2 AF1 (L+R) sound demodulation adjustment

Connect a pattern generator (e.g. PM5518) to the tuner with sound modulation 1 kHz on both L- and R-channels. Connect an oscilloscope to pin 5 Q4 (AF1 output). Adjust coil L5004 to get maximum audio output.

4.3 AF2 (2R) sound demodulation adjustment

Connect a pattern generator (e.g. PM5518) to the tuner with 1 kHz sound demodulation on R-channel and no sound demodulation on L-channel. Connect an oscilloscope to pin 3 Q4 (AF2 output). Adjust coil L5005 to get maximum audio output.

5. Settings on the 2CS + I/O + amplification panel

5.1 Stereo channel separation adjustment

Connect a pattern generator (e.g. PM5518) to the tuner with sound modulation 3 kHz on the L-channel and 1 kHz on the R-channel. Connect an oscilloscope to pin 12 IC7800 (L-INT or TP46). Adjust potentiometer 3801 to get optimal 3 kHz audio output.

5.2 Subwoofer volume adjustment (optional)

Adjust subwoofer volume in respect with squeeters volume via potentiometer R3182.

6. Settings on NICAM stereo panel

6.1 Nyquist filter

The NYQUIST filter 1018 is factory adjusted and may/can NOT be adjusted by service.

7. Settings on BTSC panel

7.1 Input gain adjustment

Adjust **R3807** for optimal BTSC reception

7.2 Oscillator adjustment

Connect pin 31 to pin 32 (+5V) of IC7801 by a 2k7 resistor. Connect an oscilloscope (or frequency counter) to pin 7 of IC7801 and align **R3828** at 15,734 kHz (pilot frequency).

7.3 Pilot cancelation adjustment

Select an off-air BTSC channel with a strong pilot. Connect an oscilloscope at pin 7 of IC7801 and adjust **R3804** for minimum 15,734 kHz, then **R3806** for minimum 15,734 kHz and then again **R3804** for minimum 15,734 kHz.

7.4 Stereo channel separation at 300 Hz

Connect an BTSC generator (e.g. Leader Model LMS-238P) to the tuner input. Set generator to an internal frequency of 300 Hz at L-signal only with Pilot and SAP "on" and Level Control pushed in. Connect AC millivoltmeter at pin 23 IC7801 (R-output) and align **R3808** for minimum amplitude at pin 23.

7.5 Stereo channel separation at 3 kHz

Connect an BTSC generator (e.g. Leader Model LMS-238P) to the tuner input. Set generator to an internal frequency of 3 kHz at L-signal only with Pilot and SAP "on" and Level Control pushed in. Connect AC millivoltmeter at pin 23 IC7801 (R-output) and align **R3810** for minimum amplitude at pin 23.

If no BTSC generator available try to adjust **R3808** and **R3810** for optimal stereo channel separation over the entire audio spectrum by listening.

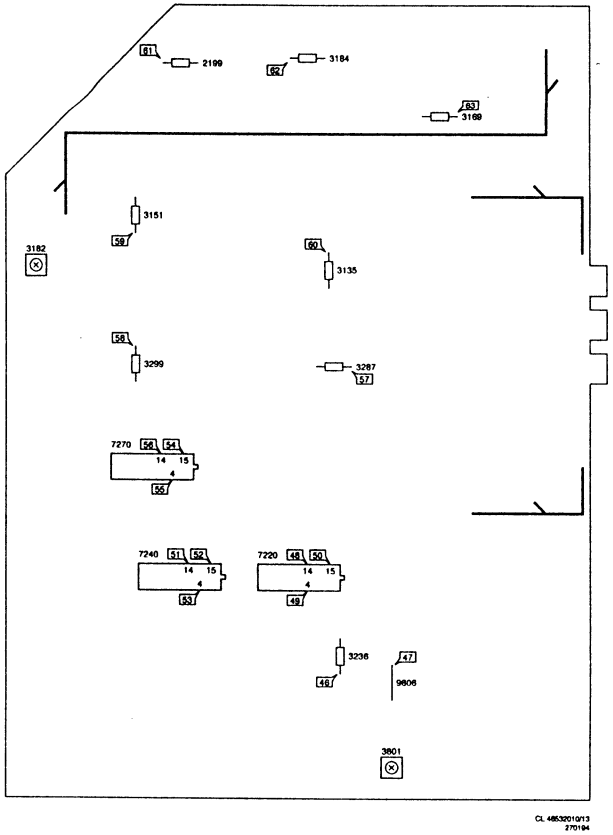
7.6 SAP level alignment

Select a BTSC channel with dual language. Switch with the remote control from language I to language II and adjust **R3809** until both I and II have approx. same sound amplitude.

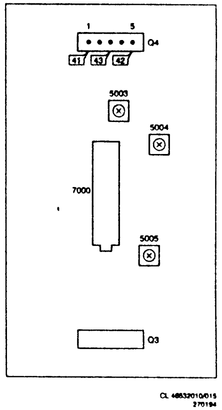
Tip: IC7801 can be forced by a DC voltage at pin 11:
Pin 11 = 2.5V → SAP (second audio program)/Language II mode
Pin 11 = 4.25V → Stereo mode
Pin 11 = 7.2V → Mono mode

Electrical adjustments

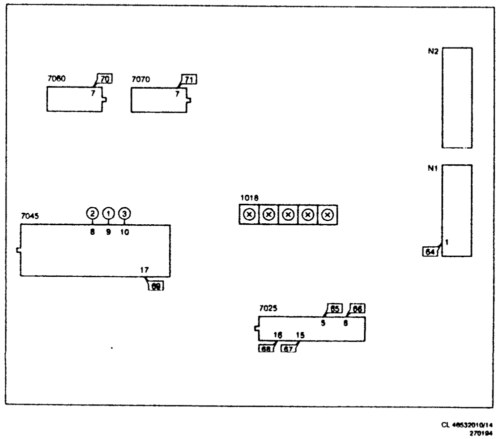
2CS + I/O + amplification panel (copper side)



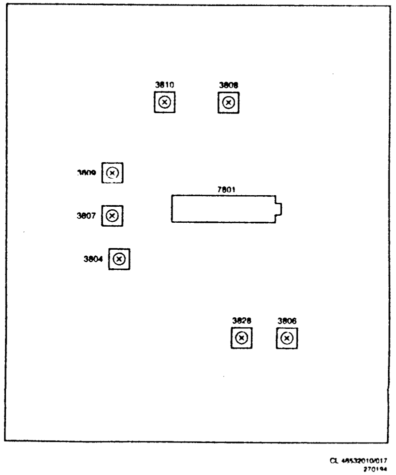
QSS (component side)



NICAM (copper side)

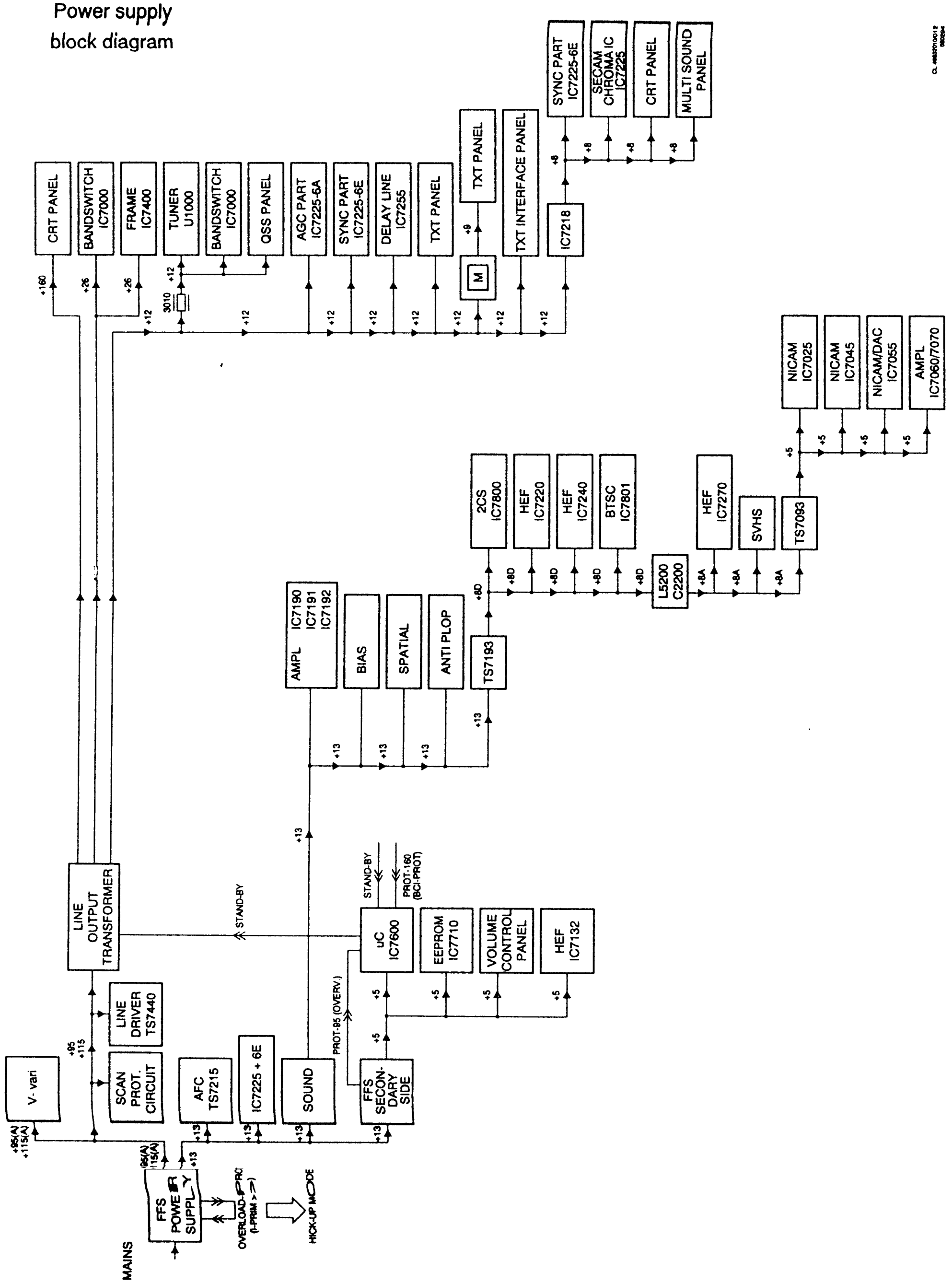


BTSC (component side)



8. Repair tips

Power supply block diagram


CRT PANEL
BANDSWITCH IC7000
FRAME IC7400
TUNER U1000
BANDSWITCH IC7000
QSS PANEL
AGC PART IC7225-6A
SYNC PART IC7225-6E
DELAY LINE IC7255
TXT PANEL
TXT PANEL
TXT INTERFACE PANEL
IC7218
SYNC PART IC7225-6E
SECAM CHROMA IC IC7225
CRT PANEL
MULTI SOUND PANEL
NICAM IC7025
NICAM IC7045
NICAM/DAC IC7055
AMPL IC7060/7070
2CS IC7800
HEF IC7220
HEF IC7240
BTSC IC7801
L5200 C2200
HEF IC7270
SVHS
TS7093
AMPL IC7190 IC7191 IC7192
BIAS
SPATIAL
ANTI PLOP
TS7193
LINE OUTPUT TRANSFORMER
STAND-BY
uC IC7600
EEPROM IC7710
VOLUME CONTROL PANEL
HEF IC7132
STAND-BY
PROT-160 (BCI-PROT)
LINE DRIVER TS7440
V- van
SCAN PROT. CIRCUIT
AFC TS7215
IC7225 + 6E
SOUND
PROT-95 (OVERV.)
FFS SECONDARY SIDE
FFS POWER SUPPLY
OVERLOAD-PROT (I-PRIM > ..)
HICK-UP MODE
MAINS
+160
+26
+26
+12
3010
+12
+8
+8
+8
+8
+5
+8D
+8A
+13
+95 +115
+95(A) +115(A)
+5

Repair tips

1. Service position for video and audio faultfinding

For **video related faultfinding** the main carrier can be disconnected from the TXT panel and the 2CS+I/O+AMPLIFICATION panel as the set will automatically switch to internal CVBS (except for SECAM chroma which signal path is via the 2CS+I/O+AMPLIFICATION panel). Of course for CVBS I/O faultfinding the 2CS+I/O+AMPLIFICATION panel should be connected to the main carrier.

For **audio related faultfinding** first measure pin 1 IC7225-6F (AUDIO_OUT LF audio signal inclusive BTSC and NICAM info) and TP 42 and 43 at resp pin 5 and 3 of connector Q4 (AF1 and AF2):

* If all OK, the fault is on the 2CS+I/O+ AMPLIFICATION or NICAM or BTSC panel

* If not all OK, the fault is on the main carrier (QSS or IC7225-6F

2. Error messages

Via I^2C the µC can detect malfunction of all I^2C controlled IC's. Maximal 3 error codes can be displayed indicating maximal 3 different errors detected at switch on (see Table 8.1). These error codes will be displayed via OSD, only in normal operation mode after every switch on of the set. Error codes detected in the past can be displayed in the Service Mode (see section 3.1.3).

Error code	Error description	Possible defective component
1	Not used (only for PLL tuner sets)	Not used
2	EEPROM Checksum Error	Set not correct configured
3	Simulcast tuning	TDA8442
4	2CS Stereo decoder	IC 7800
5	Internal RAM error	IC 7600
6	EEPROM	IC 7710
7	NICAM stereo decoder	IC 7045
8	Not used	--

Table 8.1

3. Service Default Mode

3.1 Entry of the Service Default Mode:

Shortcircuit the 2 Service Default Mode pins on the main carrier (M28 and M29 near µC) for a short moment while switching on the set. An "S" on the screen will indicate the activated Service Default Mode

3.2 Functions of the Service Default Mode:

In the Service Default Mode the set is in a pre-defined condition: All controls at 50% except volume 25%, VST sets tuned at program 1 and PLL sets tuned at 475.25 MHz (with auto system search).
All DC voltages & oscillograms indicated in the Service Manual are measured in the Service Default Mode.

3.3 Exit of the Service Default Mode:

Standby and switching off the set (of course the Service Default Mode pin shortcircuit has to be removed by then).

4. Service Mode

4.1 Entry of the Service Mode:

Shortcircuit 2 Service Mode pins on the main carrier (M31 and M32 near µC) for a short moment while switching on the set (EEPROM-protection will automatically be deactivated at entering the service mode, and activated again at exiting the service mode via standby (content of address 255 will be adapted automatically, so this does not have to be checked)).

4.2 Functions of the Service Mode:

Functions of the Service Mode are; display the software number and version, set all software controlled options, display error codes detected in the past and erase the error code detected in the past.

4.2.1 Display the software number and version.
In the Service Mode the following menu will appear:

ANUBIS-S AHV V1.3
ADR XXX DATA XXX"

SA indicates software number A, H indicates Hotel Mode option is present in this software and V1.3 indicates 1st masking with 3rd version.

4.2.2 Set all software controlled options
The addresses where the option settings are stored are the addresses 245 up to and including 253. The default data (stored by the factory) differs from stroke version to stroke version. This default data is given at a sticker inside the set.

For manipulation of the data at the option addresses 245 up to and including 253 table 8.3 can be used.

Changing the options settings according to the hardware environment, can be done in the Service Mode via the keys:

1. **"CONTROL -/+"**	By pressing the "control -/+" keys the value behind ADR or DATA will be highlighted sequently
2a. **"PROG -/+"**	By pressing "prog -/+" keys the highlighted value can be increased or decreased
2b. **"0-9"**	By pressing "0-9" keys the highlighted value can directly be keyed in
3. **"STORE"**	After every ADR and/or DATA change a "store" command has to be given to store these changes!!!

For the option addresses 245 and 246 first determine what is valid for your particular set (e.g. the first option for a software number A set at address 245 is to choose for is "2CS stereo" or "No 2CS stereo" possible) by choosing between the option A or B (option A is always the opposite of option B). After determination of all options (so 8 option choices per address) the 8 corresponding values can be added for that particular address. This sum is the data to be keyed in, so e.g. for address 245 a set with software number A data can be calculated as follows:

2CS stereo possible	→	0
AV stereo playback is selectable	→	0
AV is selectable	→	32
Spatial sound possible	→	16
Hue control possible	→	8
No simulcast	→	0
Remote STORE key not allowed	→	2
"Normal" bandswitch signals used	→	1

The data at address 254 by then is:		59

For option addresses 247 up to and including 253 the values in table 8.3 are related to the used tuner and to NICAM and Multisound panel present or not present. The values given in this table can directly be keyed in as the data for the corresponding option addresses.

The changed settings are only activated when the set is switched off and on again and if the checksum at address 254 is correctly updated; if the checksum is not OK the set will use default settings!!

The checksum can be obtained by adding all data at the addresses 245 up to and including 253 and then subtract 256 until the data has a value under 256: for example, if EEPROM contains the following data, the checksum will be:

Address	*Data*
245	187
246	117
247	41
248	82
249	74
250	33
251	132
252	8
253	226

	900

900 - 256 - 256 - 256 = 132

Checksum address	*Data*
254	132

The other addresses of the EEPROM (so all addresses except 240 to 254 and 220) contain program information and preference-, factory- and current settings.

4.2.3 Display error codes detected in the past

The data at address 220 indicates all error codes detected in the past. The data at address 220 is a byte whereby the 8 bits refer to 8 possible error codes detected in the past; see table 8.2.

Data at address 220	Error codes: 8 7 6 5 4 3 2 1	Error codes detected in the past
000	0 0 0 0 0 0 0 0	No error codes detected
001	0 0 0 0 0 0 0 1	1
002	0 0 0 0 0 0 1 0	2
003	0 0 0 0 0 0 1 1	1 & 2
004	0 0 0 0 0 1 0 0	3
005	0 0 0 0 0 1 0 1	1 & 3
006	0 0 0 0 0 1 1 0	2 & 3
007	0 0 0 0 0 1 1 1	1 & 2 & 3
etc.		
etc.		
255	1 1 1 1 1 1 1 1	1 & 2 & 3 & 4 & 5 & 6 & 7 & 8

Table 8.2

4.2.4 Erase the error code detected in the past

If data at address is overwritten with 000 the error code history has been erased.

4.3 Exit of the Service Mode:

For all software numbers the Service Mode is exited via the standby command.

5. Replacing an EEPROM

Besides of the option settings also information about programs, PP (personal preference), IP (initial or factory preference, the "NORMAL" in the PP-toggle function) and CU (current settings at the moment the set was switched off) are stored in the EEPROM. After replacing an EEPROM the PP will be stored after pressing the PP store button and the CU will be stored after switching off the set. But as the IP can not be filled via a "Normal Operation", this has to be done (although it is not necessary for basic operation of the set) in the Service Mode by storing the following data at the respective addresses:

Address	*VST-sets*	*PLL-sets*
232	63	63
233	20	30
234	33	39
235	32	32
236	176	170
237	160	160
238	20	20

6. Hotel mode

Hotel mode can only be activated if:
1. Software for hotel mode is available (so an "H" version)
2. When hotel mode option (address 246) is enabled
Two hotel modes are possible:

Hotel mode 1:

- Activating by simultaneously pressing the "STORE" and "PROGRAM-" on the local keyboard while program 38 is selected. Both keys must be hold down for at least 3 seconds.
- Features:
  - Install menu (also automatic search) not possible.
  - Storing PP not possible.
  - Using the "PROGRAM +/-" keys from standby will switch the TV on to program 1 instead of to the last selected program.
  - Maximum volume value is limited to the value present at the moment the hotel mode was activated.
- Deactivating by simultaneously pressing the "PROGRAM+" and "VOLUME-" keys on the local keyboard for at least 3 seconds while program 38 is selected.

Hotel mode 2:

- Entering by simultaneously pressing the "STORE" and "PROGRAM-" on the local keyboard while program 37 is selected. Both keys must be hold down for at least 3 seconds.
- Features:
  Same features as Hotel mode 1 except from program numbers 30 up to 49 the screen remains blanked to be used as a radio (the transmitter should produce a valid horizontal IDENT).
  While these blanked program numbers are tuned the small program number will be displayed permanently.
- Deactivating by simultaneously pressing the "PROGRAM+" and "VOLUME-" keys on the local keyboard for at least 3 seconds while program 37 is selected.

Option setting table for software number A

Address	Option A	Value	Option B	Value
245	2 CS stereo possible	0	2 CS stereo not possible	128
	AV stereo playback enabled	0	AV uses mono only	64
	No AV selectable	0	AV selectable	32
	No spatial sound possible	0	Spatial sound selectable	16
	No hue control possible	0	Hue control possible	8
	No simulcast	0	Simulcast available	4
	Remote STORE key allowed	0	No remote STORE key	2
	VHF1 and VHF3 swapped for UV973 tuner	0	"Normal" bandswitch signals	1
246	No hotel mode possible	0	Hotel mode can be enabled	128
	No UHF tuning possible	0	UHF band allowed	64
	No VHF3 tuning possible	0	VHF3 band allowed	32
	No VHF1 tuning possible	0	VHF1 band allowed	16
	Not used			0
	No sound standard selection	0	Auto, M, B/G, I, D/K sound selection possible	4
	Not used			0
	No colour system selection	0	Auto, SECAM, PAL(/NTSC)	1
247	No NICAM panel possible, multisound panel not present			40
	No NICAM panel possible, multisound panel present			41
	NICAM available, multisound panel not present			168
	NICAM available, multisound panel present			169
248	UV 913 / UV 973 (VST)			191
	UV 915 (VST)			42
	UV 953 (VST)			162
249	UV 913 / UV 953 / UV 973 (VST)			93
	UV 915 (VST)			73
250	UV 913 / UV 953 / UV 973 (VST)			25
	UV 915 (VST)			0
251	UV 913 / UV 953 / UV 973 (VST)			134
	UV 915 (VST)			129
252	All VST tuners			0
253	UV 913 / UV 953 / UV 973 (VST)			224
	UV 953 (VST)			225

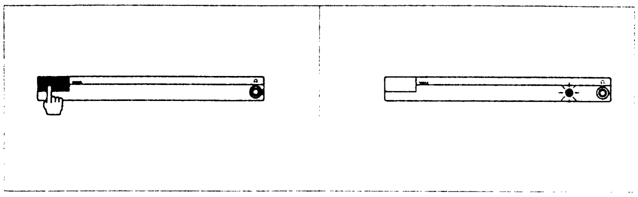
Table 8.3

9. Directions for use

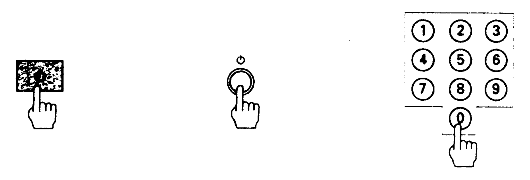
Switching the TV ON/OFF

- **Press the POWER button on the front bottom left hand corner of the TV to switch ON/OFF and wait a few seconds for the sound or signal to come on.**

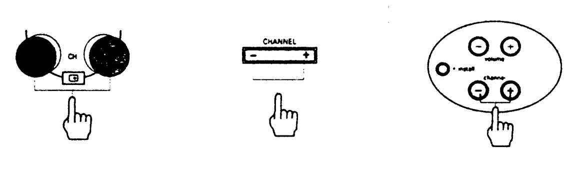
If there is a red light on the bottom of the screen, it indicates that the TV has been put to 'Stand-by' mode.



- Press the STAND-BY button (⏻) or any digit buttons on the remote control handset OR



- Press the CHANNEL + or — button on the remote control handset or the TV control



Searching and Storing TV Channels

For searching and storing TV channels you need to work with the control buttons at the top of the TV and your remote control handset. (Up to 70 TV stations can be stored on channel numbers using the following methods.) **You can store the TV stations either automatically or manually.**

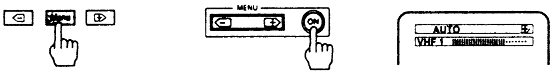
(Note : For Australia (version /75) the TV is pre-tuned to channel number 0, 2, 7, 9, 10 and 28.)

A. To Store the TV Stations Automatically

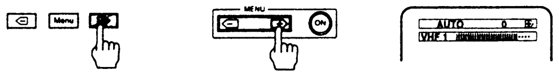
1. Press the INSTALL button at the top of the TV with a pointed object to start the INSTALLATION menu; the **AUTO** menu is selected first.

volume
install
channel
AUTO MANUAL
FINE SWAP SKIP

2. Press the MENU or MENU ON button on the remote control handset to select the **AUTO** menu.



3. Press the MENU + button on the remote control handset to start the **AUTO** mode. The TV will start searching and store all available stations in an ascending sequence.

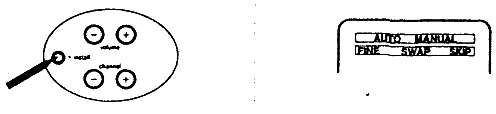


NOTE : If at any time of the AUTOMATIC TUNING procedures and you wish to exit, press the ⊖ button on your remote control handset.

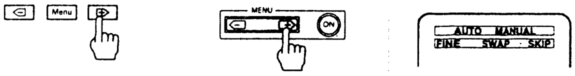
When all the available stations are stored, it will automatically exit from the INSTALLATION Menu and channel 1 will be displayed. In case the picture and sound is not optimum, proceed to the section on Fine Tuning.

B. To Store the TV Stations Manually

1. Press the INSTALL button at the top of the TV set with a pointed object to start the **INSTALLATION** Menu.

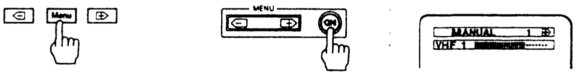


2. Press the MENU + button on the remote control handset to highlight the **MANUAL** menu.

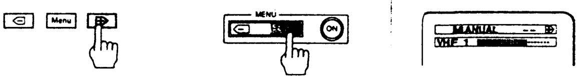


NOTE : If at any time of the MANUAL TUNING procedures and you wish to exit, press the ⊖ button on your remote control handset.

3. Press the MENU or MENU ON button on the remote control handset to select the **MANUAL** Menu.



4. Press the MENU + button on the remote control handset to start the **MANUAL** mode. The TV will start searching and at every available station, it will prompt you to enter your preference channel number.



If the signal is weak and you do not wish to store the TV station, press the MENU + button to continue searching.

If the signal is good and you wish to store the TV station, select the desired channel number by pressing the CHANNEL + or — button on your remote control handset or TV control. Store your selection by pressing the INSTALL button.

5. Repeat Step **4** to store other available TV stations.

TO EXIT :

- Press the INSTALL button again.

NOTE : If in case the picture and sound stored is not optimum, proceed to the section on Fine Tuning.

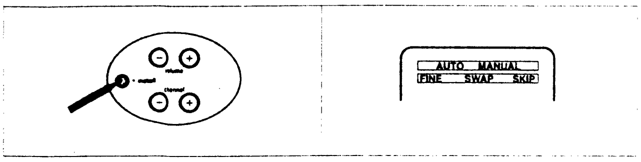
Directions for use

C. Fine Tuning

In case the picture and sound is not optimum or in area of poor reception and constant interference, a slight adjustment of the tuning may improve the picture and sound quality.

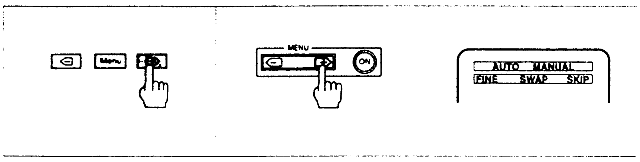
1. Select the channel which you want to fine tune with the CHANNEL + or – button on the remote control handset or TV control.

2. Press the INSTALL button at top of the TV to start the INSTALLATION Menu.

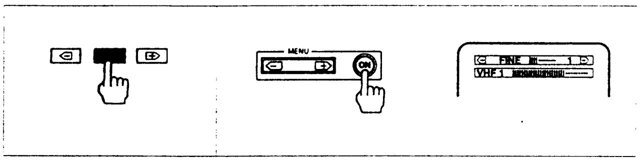

volume
install
channel
AUTO MANUAL
FINE SWAP SKIP

NOTE : If at any time of the FINE TUNING procedures and you wish to exit, press the ⊡ button on your remote control handset.

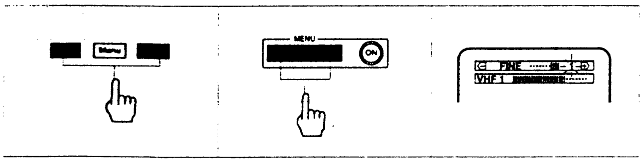
3. Press the MENU + button on the remote control handset to highlight the FINE tuning menu.


Menu
MENU
ON
AUTO MANUAL
FINE SWAP SKIP

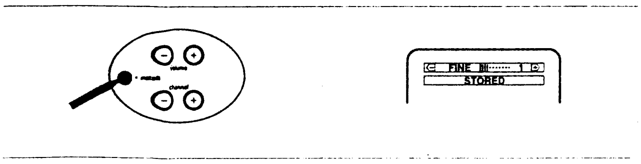
4. Press the MENU or MENU ON button on the remote control handset to start the FINE tuning Menu.


MENU
ON
FINE
1
VHF 1

5. Press and hold the MENU + or – button on the remote control handset until the desired picture or sound is obtained. A moving indicator and blinking channel number will appear on the screen indicating that the set is being fine tuned.


Menu
MENU
ON
FINE
1
VHF 1

6. Press the INSTALL button on the TV control to store the new settings. Repeat the above procedures for other channel numbers which you wish to do a fine tuning.


volume
install
channel
FINE
1
STORED

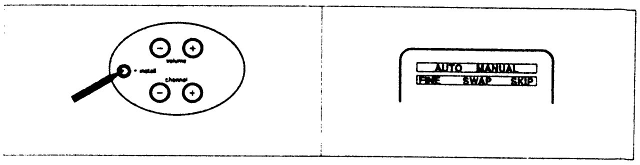
TO EXIT :
- Press the INSTALL button again.

D. Swapping channel numbers

If you had used the automatic frequency searching, the TV stations stored under the channel numbers may not be to your preference. You can made use of the SWAP feature to re-arrange the TV stations according to the channel numbers of your preference.

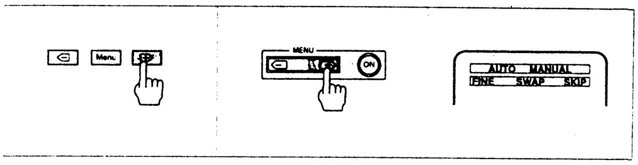
1. Select the channel number which you want to do a swap.

2. Press the INSTALL button at the top of the TV with a pointed object to start the INSTALLATION Menu.

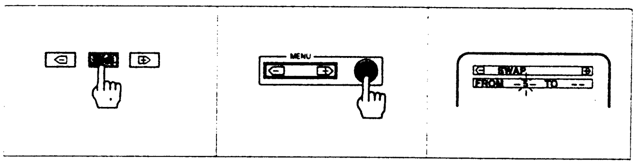

volume
install
channel
AUTO MANUAL
FINE SWAP SKIP

NOTE : If at any time of the SWAPPING procedures and you wish to exit, just press the ⊡ button on your remote control handset.

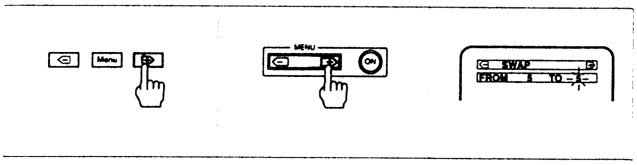
3. Press the MENU + button on the remote control handset to highlight the SWAP menu.


Menu
MENU
ON
AUTO MANUAL
FINE SWAP SKIP

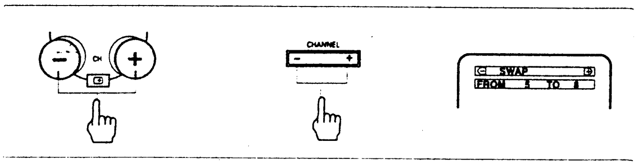
4. Press the MENU or MENU ON button on the remote control handset to start the SWAP Menu. The current channel will be indicated at the FROM column in green and flashing. e.g. Ch 5


MENU
SWAP
FROM -5- TO --

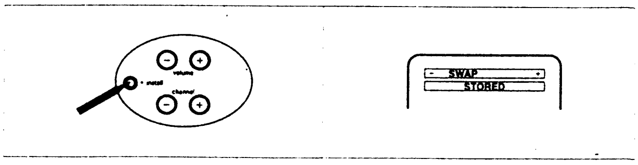
5. Press the MENU + button on the remote control handset to select the TO column. (Pressing the MENU + or – button will enable you to toggle between the TO and the FROM function).


Menu
MENU
ON
SWAP
FROM 5 TO -5-

6. Select the channel number you wish to do the swapping by pressing the CHANNEL + or – button on the remote control hanndset or TV control e.g. Ch 8.


CH
CHANNEL
SWAP
FROM 5 TO 8

7. Press the INSTALL button to activate the SWAP function and to store the swapped channels.


volume
install
channel
SWAP
STORED

TO EXIT :
- Press the INSTALL button again.

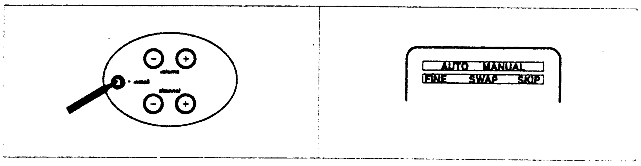
NOTE :
When the TV is at the following modes, the SWAP feature does not activate :-
1. AV
2. Teletext (if your set is equipped)
3. The FROM column is indicated with -- symbol.

Directions for use

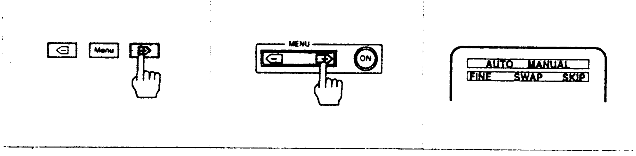
E. Skipping channel numbers

This feature enable you to skip those channel numbers which have bad or no TV station signal via the CHANNEL + or — button on the remote control handset or TV control. But if you do a direct channel number keying on a remote control handset, you still can select the particular channel number even though it is been skipped.

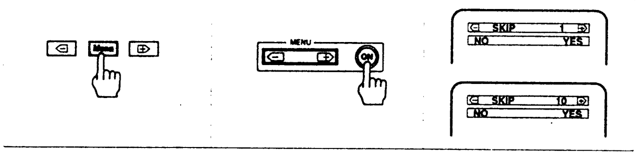
1. Press the INSTALL button at the top of the TV, to start the INSTALLATION Menu.



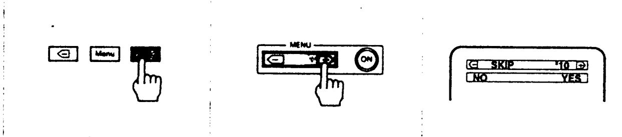
2. Press the MENU + button on the remote control handset to highlight the SKIP menu.



3. Press the MENU or MENU ON button on the remote control handset to start the SKIP Menu and select the required channels to be skipped with the CHANNEL + or — button on the remote control handset or TV control e.g. Ch 10.



4. Press the MENU + button on the remote control handset to select YES and the channel will be skipped from the memory. When a channel is skipped, the On Screen Display in the SKIP Menu will display e.g. *10 in red.



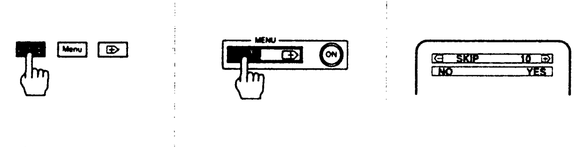
TO EXIT :
- Press the INSTALL button at the top of the TV.

NOTE : If you need to add back the channel that you have skipped, please refer to the section on 'Adding back the skipped channel numbers' below.

F. Adding back the skipped channel numbers

1. Repeat steps E1 to E4 on the previous page.

2. Press the MENU — button to select NO and the channel will be added to the memory. When a channel is added, the On Screen Display in the SKIP Menu will displayed, e.g. 10 in green.



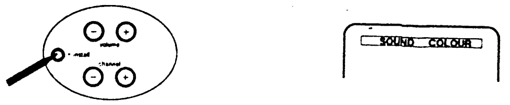
TO EXIT :
- Press the INSTALL button at the top of the TV.

TV System Sound Selection (for multi-system sets only)

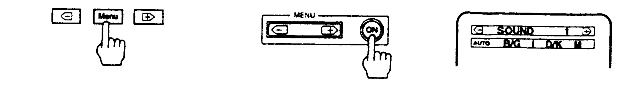
If during Automatic or Manual Tuning, the selected sound is distorted due to different TV transmission system, proceed with the following operations to restore the correct sound for the respective transmission.

1. Select the channel number you want to rectify the sound system.

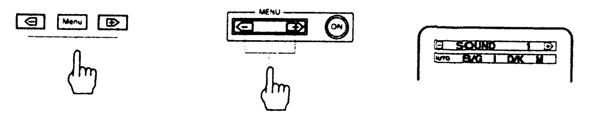
2. Press and hold the INSTALL button at the top of the TV continuously for about 2 seconds, to activate the SOUND and COLOUR Menu; the SOUND menu is selected first.



3. Press the MENU or MENU ON button on the remote control handset to start the SOUND menu.



4. Press the MENU + or — button on the remote control handset to select one of the following sound systems according to the respective transmission mode : AUTO ; B/G ; I ; D/K or M



If you select the AUTO mode, the TV will automatically select the respective sound system according to the transmission system.

NOTE : In area of poor reception, select the respective transmission mode B/G, I, D/K or M instead of AUTO mode.

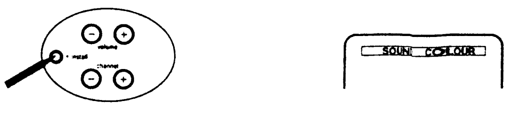
5. Press the INSTALL button on the TV control to store the selections and to exit from the SOUND and COLOUR Menu.

TV System Colour Selection (for multi-system sets only)

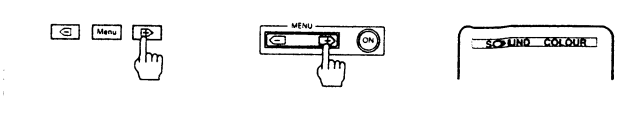
If during Automatic or Manual Tuning, the selected colour is distorted due to different TV transmission system, proceed with the following operations to restore the correct colour for the respective transmission.

1. Select the channel number you want to rectify the colour system.

2. Press and hold the INSTALL button on top of the TV continuously for about 2 seconds, to start the SOUND and COLOUR Menu.

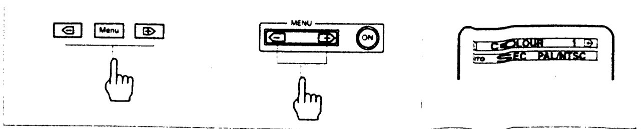


3. Press the MENU + button to select the COLOUR menu.



4. Press the MENU or MENU ON button on the remote control handset to start the COLOUR menu.

5. Press the MENU + or — button to select one of the following colour system according to the respective transmission mode : AUTO ; SECam or PAL/NTSC



If you select the AUTO mode, the TV will automatically select the respective colour system according to the transmission system.

NOTE : In area of poor reception, select the respective transmission mode SECam or PAL/NTSC instead of AUTO mode.

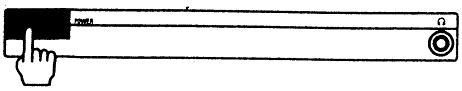
6. Press the INSTALL button on the TV control to store the selections and to exit from the SOUND and COLOUR Menu.

Directions for use

You can now operate your TV either directly using the TV buttons or the remote control handset.

1. Switching the TV ON/OFF

- Press the POWER button on the bottom left hand corner of your TV to switch the TV ON and OFF.

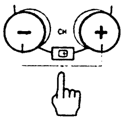


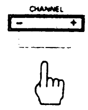
NOTE : The last viewed TV station will be automatically selected when the set is first switched on.

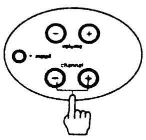
2. Selecting the TV Channels

To select a TV station stored on a higher channel number
- Press the CHANNEL + on the remote control handset or the TV control.

To select a TV station stored on a lower channel number
- Press the CHANNEL — on the remote control handset or the TV control.







Channel numbers can also be selected using the digit buttons 0 to 9 on the remote control handset.

A. Single Digit Channel Number

- Press and hold any of the respective digit buttons which correspond to the stored TV station. (see Fig. 1)

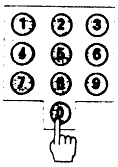


Fig. 1

B. Two Digits Channel Number

(e.g. channel 28, see Fig. 2)
❶ Press the digit 2 button then
❷ Press the digit 8 button.

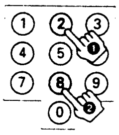


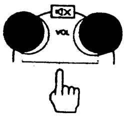
Fig. 2

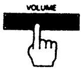
You must complete the above operation within a time frame of 2 seconds, if not, it will react as a Single Digit operation.

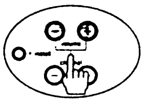
3. Adjusting the Volume

To increase the volume
- Press the VOLUME + on the remote control handset or the TV control.

To decrease the volume
- Press the VOLUME — on the remote control handset or the TV control.





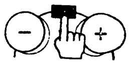


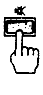
NOTE : If you want to store the volume as your personal preference, press the INSTALL button on the TV set while the volume indicator bar is still on the screen.

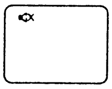
The following functions, S/No 4 to 12 are operations with the remote control handset.

4. Muting the Sound

- Press the mute button to switch off the sound.







The sound is temporarily muted and the mute symbol is display on the screen.

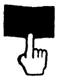
- Press the mute button or the VOLUME + or — button to restore the sound.

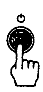
5. Switching to 'Stand-by' mode

The TV can be put into 'Stand-by' mode in the following two ways.

A. Directly

- Press the ⏻ button. The RED light below the TV screen is lighted up and the TV is put into 'Stand-by' mode.



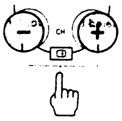


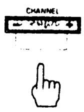
B. Automatically

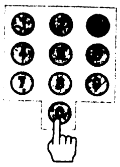
Approximately 10 minutes after a TV station stops transmission or at no signal reception, then the TV switches itself automatically to 'Stand-by' mode.

6. Switching the TV ON from 'Stand-by' mode

- Press the CHANNEL + or — button or any digit buttons.

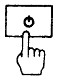


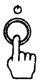




OR

- Press the ⏻ button continuously for about 2 seconds.



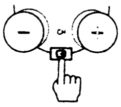


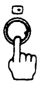
The RED light below the TV screen will disappear.

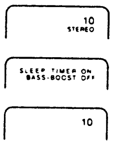
7. Displaying OSD

The 'On-Screen-Display' (OSD) allows you to see the channel number on which a TV station is stored and also the sleep-timer and bass-boost selections.

- Press the ⊡ button ONCE to display the channel number, TWICE to display the sleep-timer and bass-boost and ONCE MORE to switch off the displayed information.





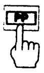


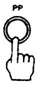
8. Personal Preference (PP)

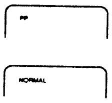
If adjustments had been made to the picture and sound settings, it is possible to recall the stored settings either from your own or factory stored preferences.

Recalling Personal Preference (PP) and Factory Stored Personal Preference (NORMAL)

- Press the PP button ONCE to reset the picture and sound settings to the one you have stored previously. (Refer to section on Menu Operation for storing of personal preference) It is indicated by the word PP.
- Press the PP button ONCE MORE will enable you to reset the picture and sound settings to the one that had been stored by the factory previously (you cannot adjust this settings) and is indicated by the word NORMAL.



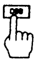


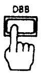


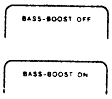
9. Dynamic Bass-Boost (DBB)

This feature enable you to enhance the bass especially for musical programmes.

- Press the DBB button to switch on or off the amplification.



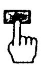


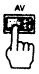


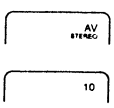
10. AV Source Selection

If your TV is connected to other peripherals equipment via the AV input, you can watch the playback programmes in the AV channel.

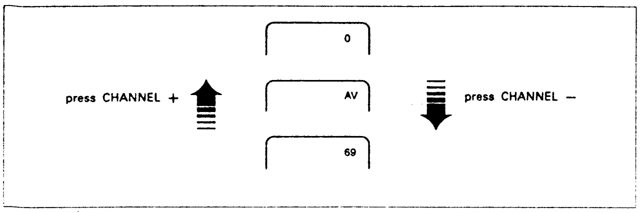
- Press the AV button to switch between the AV mode and the TV mode







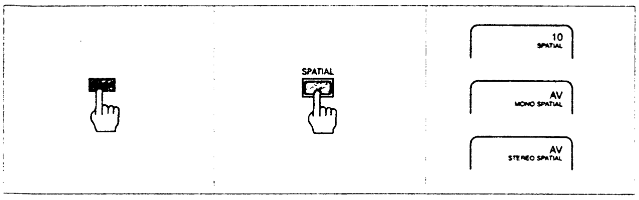
AV can also be selected via the CHANNEL + or − button by scrolling through the channel numbers (provided AV channel is not skipped).


press CHANNEL +
0
AV
69
press CHANNEL −

11. Spatial Sound

This feature enable you to hear a Surround effect.

- Press the SPATIAL button to switch on or off the special acoustic sound effect.


SPATIAL
10 SPATIAL
AV MONO SPATIAL
AV STEREO SPATIAL

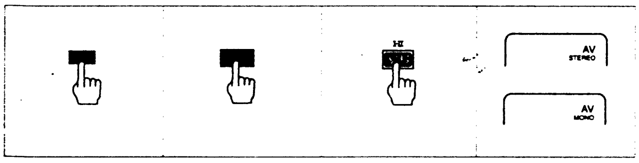
You can select either **STEREO SPATIAL** or **MONO SPATIAL** depending on which sound mode you are playing back.

12. Stereo Playback

This feature is only applicable if you are playing back STEREO programme via the AV sockets from a stereo VCR or laser disc player.

- Press the STEREO or I-II button to switch between **STEREO** or **MONO** sound.

If you are playing back mono programmes (i.e. you only connect the Video socket and the Audio L socket), you must select to the mono sound mode, if not, you will only hear the sound coming out from one of the speakers.

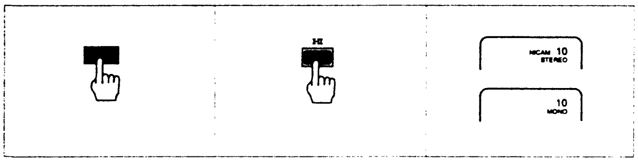

I-II
AV STEREO
AV MONO

For models 21GX1870, 21GX1970, 25GX1880 and 25GX1980 only

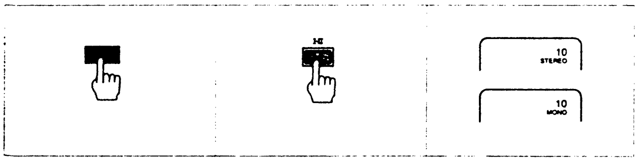
This feature is only applicable if the TV broadcast is transmitted in NICAM Stereo and 2CS Stereo sound. If not you will receive either normal stereo or mono sound. With NICAM (Near Instantaneous Companded Audio Multiplex) sound you can experience a sound quality that is comparable to compact disc quality.

- Press the I-II button on the remote control handset to select between NICAM Stereo / 2CS Stereo and FM Sound (appear as MONO in yellow on the TV On-Screen-Display).

For NICAM Stereo

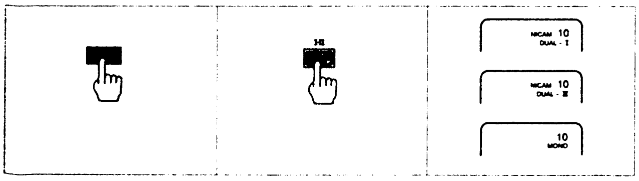

I-II
NICAM 10 STEREO
10 MONO

For 2CS Stereo

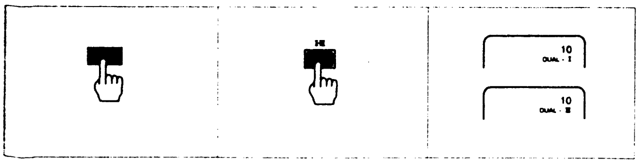

I-II
10 STEREO
10 MONO

When a programme is broadcasted in two languages,
1. For NICAM Stereo, press the I-II button to select either DUAL- I or DUAL- II or FM sound.
2. For 2CS Stereo, press the I-II button to select either DUAL- I or DUAL- II.

For NICAM Stereo

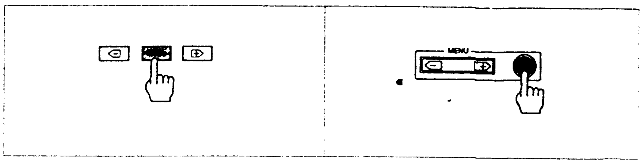

I-II
NICAM 10 DUAL - I
NICAM 10 DUAL - II
10 MONO

For 2CS Stereo


I-II
10 DUAL - I
10 DUAL - II

The picture and sound settings are pre-set by the factory for ideal viewing, but you can store your own personal preference for CONTRAST, BRIGHTNESS, COLOUR, HUE, SHARPNESS, BALANCE and BASS-BOOST using the 'On Screen Menu' (see Fig. 1).

- Press the MENU or MENU ON button on the remote control handset to cycle through the menu.



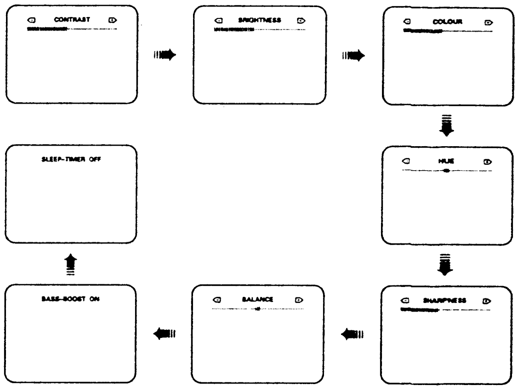
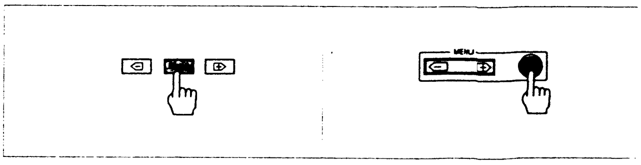

CONTRAST
BRIGHTNESS
COLOUR
HUE
SHARPNESS
BALANCE
BASS-BOOST ON
SLEEP-TIMER OFF

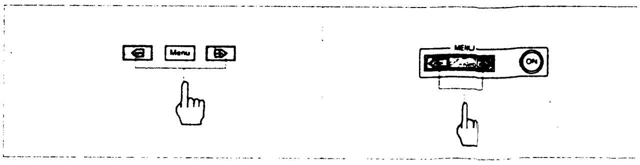
Fig. 1 : On Screen Menu

To store your personal preference

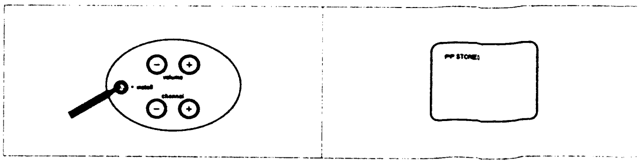
❶



❷


Menu
MENU
ON

❸


volume
install
channel
PP STORED

NOTE : You must perform the settings of the following selections within a time frame of about 4 seconds. Otherwise the On Screen Display will go off and you have to start the whole cycle again.

CONTRAST

❶ Press the MENU or MENU ON button to select **CONTRAST**.
❷ Press the MENU + or − button to increase or decrease the contrast setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

BRIGHTNESS

❶ Press the MENU or MENU ON button to select **BRIGHTNESS**.
❷ Press the MENU + or − button to increase or decrease the brightness setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

COLOUR

❶ Press the MENU or MENU ON button to select **COLOUR**.
❷ Press the MENU + or − button to increase or decrease the colour setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

Directions for use

HUE (For NTSC System or Playback only)

❶ Press the MENU or MENU ON button to select **HUE**.
❷ Press the MENU + or – button to increase or decrease the colour tone setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

SHARPNESS

❶ Press the MENU or MENU ON button to select **SHARPNESS**.
❷ Press the MENU – or + button to decrease or increase the sharpness setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

BALANCE (For off-air stereo and AV stereo only)

❶ Press the MENU or MENU ON button to select **BALANCE**.
❷ Press the MENU + or – button to select right or left speaker output.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

BASS–BOOST

❶ Press the MENU or MENU ON button to select **BASS–BOOST**.
❷ Press the MENU + or – button to switch on or off the bass–boost.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

SLEEP–TIMER

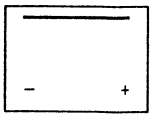
❶ Press the MENU or MENU ON button to select **SLEEP–TIMER**.
❷ Press the MENU + or – button to increase or decrease the sleeptimer setting.

With this feature, you can select a time period after which the TV set will switch to Stand–by mode automatically. The timer can be set in steps of 15 minutes from OFF up to a maximum of 120 minutes.

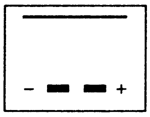
NOTE : At the final minute of the selected time period, an indication bar will be shown on the screen. During the final 30 seconds, the indication bar will begin to count down on the screen informing you that the TV set is going to switch to the Stand–by mode. At the end of the countdown, the TV will switch over to the Stand–by mode.

You can switch off the SLEEP–TIMER with one of the following steps:–
ⓐ Select the SLEEP–TIMER menu and select the timer to OFF;
ⓑ Switch the TV set to Stand–by mode or
ⓒ Switch off the TV set.

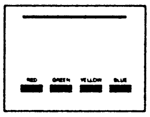
Most TV channel broadcast contains teletext information. Each channel that broadcasts teletext transmits a page (index page) with information on how to use its teletext system – usually on page 100. TV programmes are sometimes subtitled for the benefit of the hard of hearing.
Depending on the TV broadcast, teletext is transmitted in different systems : WST, TOP or FLOF. The system transmitted is indicated in the option line at the bottom of the screen.



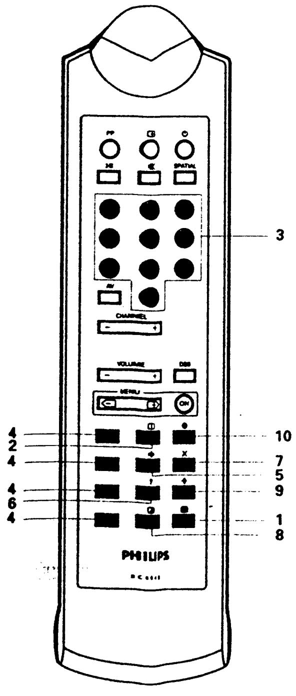
WST



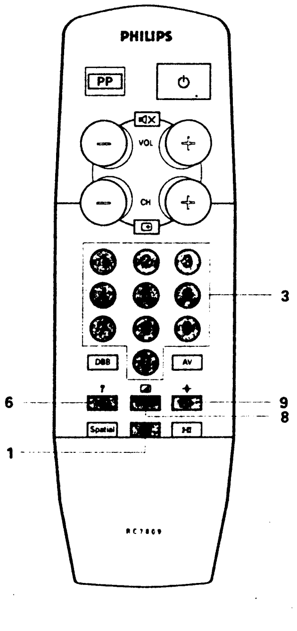
TOP



FLOF



For models 21GX1970, 21GX1971, 25GX1980 and 25GX1981



For models 21GX1870 and 25GX1880

1. Switching Teletext On and OFF — ▤

Select a TV channel on which teletext is being transmitted. (Check with a TV programme guide.)
- Press the ■ button to switch on or off the Teletext display. Usually the list of contents (index) is displayed on the screen.

2. Index — ◫ (For RC 6940 only)

- Press the ◫ button to select the index page.

3. Selecting a Teletext Page — Digit 0 – 9

- Press the digit button for the required Teletext page number (3 digits).
  The selected page number is displayed at the top left corner of the screen. The Teletext page counter searches until the selected page is located. Then the required page is displayed on the screen. If the counter keeps searching, it means that the page is not available for selection.
  If you had made a mistake in keying the page number, you have to complete the three digit number before re-keying the correct page number.

NOTE : If an inappropriate digit button is pressed a '?' symbol will be displayed on the top left corner of the screen. To return to normal Teletext operation, just press the approriate digit buttons.

4. To 'Fast' Select a Teletext (For RC 6940 only)

If the teletext is transmitting with FLOF (or Fast Text) format, you can make use of the corresponding colour buttons (red, green, yellow and blue) to select the respective Teletext page.
If the Teletext is transmitting with the WST format, there is a four page memory. You can select the next two sequential pages or the previous page quickly.
- Press the red button to select the previous page.
- Press the blue button to select the next sequential page.

5. Hold — ≑ (For RC 6940 only)

A selected page number sometimes contains a few sub-pages. The sub-page will automatically rotate to the next sub-page after about 20 seconds. The total numbers of sub-pages are indicated on the top right corner of the screen. (e.g. 1/4)
- Press the ≑ button to hold a sub-page to read the text at your own pace, ⊟ symbol appears at the top left corner of the screen indicating that the page is on hold.
- Press the ≑ button to resume page rotation.

6. Reveal — ?

Sometimes a Teletext page contains concealed information such as in a quiz or puzzle.
- Press the ? button to reveal the concealed information.
- Press the ? button again to hide the concealed information.

7. Interrupt — X (For RC 6940 only)

To swap the Teletext and TV mode.
- Press the X button to change to the TV mode. The TV programme appears and the ■ symbol appears at the top left corner of the screen indicating that the page is swapped.
- Press the X button again to return to the Teletext page.

8. Mix — ◪

- Press ◪ button to superimpose the Teletext page over the TV programmes on the screen.
- Press ◪ button again to return to the Teletext page.

9. Enlarge — ✦

This mode enables you to view the Teletext page at double size in two pages.
- Press the ✦ button to view the top half of the Teletext page.
- Press the ✦ button again to view the bottom half of the Teletext page.
- Press the ✦ button once more to return to normal size Teletext page.

10. Subcode /Time Display — ◕ (For RC 6940 only)

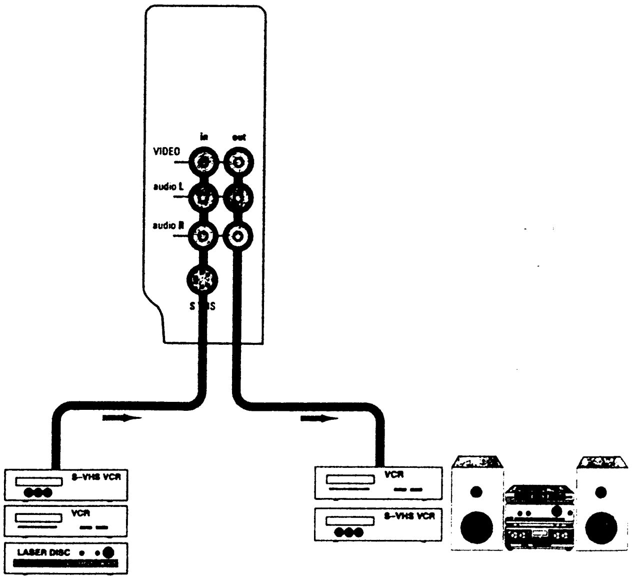
By adding a subcode, you can call up a sub-page and hold it.
- Enter the Teletext page number (the Teletext page must have sub-pages in it).
- Press the ◕ button.
- Enter the subpage with 4 digits : e.g. 0003 for 3/4 (third of 4 pages).
- Press the X button.

The TV programme appears and the digits 0003 will be displayed as soon as the sub-page has been found.
- Press the X button to switch to the Teletext mode.
- Press the ◕ button to cancel the subcode.

To display the time (only applicable to those channels that is broadcasting Teletext)
- Press the ◕ button to switch on the time display. The time is displayed on the top right hand corner of the screen.
- Press the ◕ button to switch off the time display.

Rear and antenna connections are located at the back panel of the TV set while headphone connection is located in the front. Drawings below are graphical representation of the connection options of the TV set.

Rear Connections

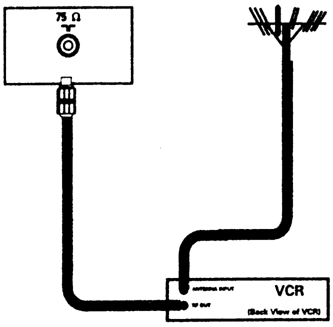


AV INPUT
Connect the Video and Audio Left sockets to your mono VCR. If stereo VCR or Laser Disc are used, connect the Audio Right socket also. If you have a S-VHS VCR, you can enhance the picture quality by using the S VHS socket.
Note : S-VHS signal will have priority over Video signal if both are connected.

AV OUTPUT
Allows you to record what you are viewing on the TV onto a VCR. Connect the Video, Audio Left and Right sockets respectively. If a S-VHS VCR is used, connect to the S-VHS socket instead of the Video socket.
Note : S-VHS signal will have priority over Video signal if both are connected.

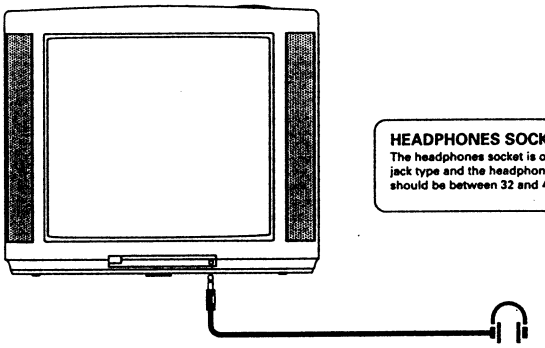
You can also enhance the sound of your TV by connecting the Audio Left and Right sockets to your external amplifier.

Antenna Connection



ANTENNA RF INPUT
You can connect the antenna either through the VCR or directly to the TV. Connect the antenna to the RF input of the VCR and from the VCR RF output, connect to the antenna input (⊤) of your TV.

Headphone Connection



HEADPHONES SOCKET
The headphones socket is of the 3.5 mm jack type and the headphones used should be between 32 and 4000 ohms.

To store the Video Cassette Recorder (VCR) signal on a channel number

(Please refer to section on 'Peripherals Equipment Connections' on how to connect your VCR.)

NOTE : Your VCR could already have pre-tuned TV channel numbers stored. For detailed connection and installation of the VCR, please refer to the Instruction Manual of the VCR.

1. Switch on the TV and the VCR.

In most VCR, there is a test signal switch located at the back of the set.
2a. Switch the test signal switch from the off position to the test signal position. (see Fig. 1)

If your VCR does not have the test signal switch, you can used a pre-recorded tape to simulate the video signal.
2b. Insert a pre-recorded tape into the VCR and press the PLAY button on the VCR. (see Fig. 2)

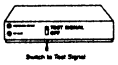


Fig. 1

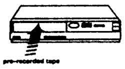
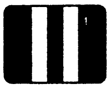


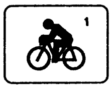
Fig. 2

3. Perform a manual searching (see section under "To Store the TV Stations Manually") to search for the VCR test signal or the tape signal.

4. When the VCR test signal or the video tape signal is located, select the desired channel number to be stored. Then press the INSTALL button to store the channel number.

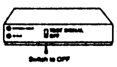


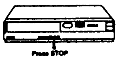
VCR test signal



Video tape signal

5. Switch back the test signal switch on the VCR to the off position (or stop the VCR if you are using the pre-recorded tape).





6. Switch off the TV and the VCR.

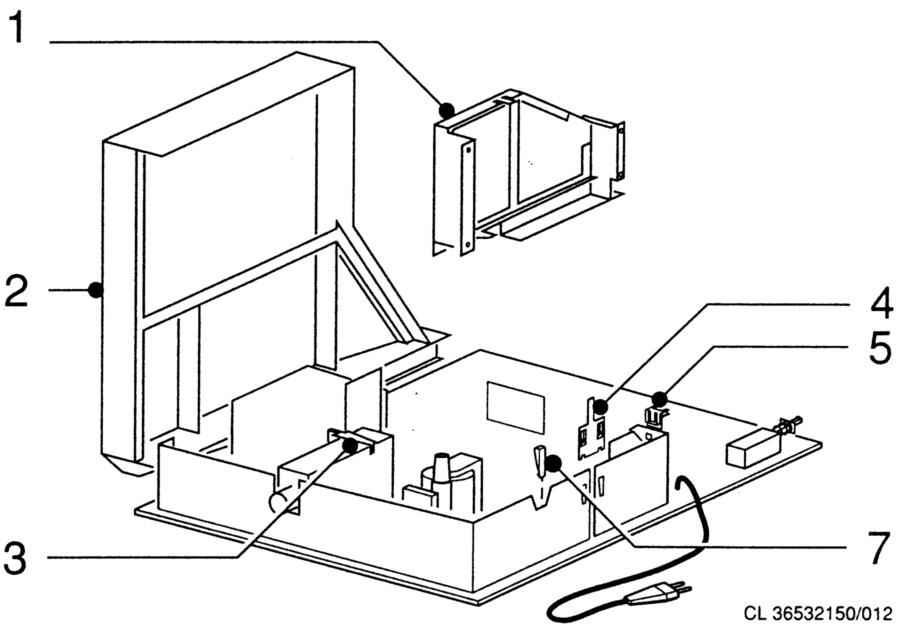
	21"	25"
Picture Tube Size	21" (51 cm)	25" (59 cm)
Audio Output : Speakers : Woofer	2 x 2 W 4W	
Channel Numbers	VHF (I, III) and UHF with 70 pre-selections	
Tuning System	VST	
Antenna Input	75 ohm co-axial	
Connections : AV Input / Output : Headphones Socket	1 x Video, 2 x Audio Sockets, 1 x S-VHS Ø 3.5 mm	
Dimensions (Width x Height x Depth)	(576 x 440 x 484) mm	(648 x 500 x 501) mm
Weight (Approx. Only and without packaging)	24 kg	31 kg

		VERSION /XX								
		52	56	57	58	59	69	75	79	93
TV System	PAL B/G	•	•				•		•	
	PAL B/H							•		
	PAL D									•
	PAL I			•						•
	PAL/SECAM B/G/D/K		•	•	•	•	•			•
	NTSC M		•	•			•			•
	PAL 60 Playback	•	•	•	•	•	•	•	•	•
Operating Voltage	160 – 250 V~, 50/60 Hz	•			•					
	220 V ~, 50/60 Hz									•
	230 V~, 50/60 Hz								•	
	240 V~, 50/60 Hz							•		
	100 – 250 V~, 50/60 Hz		•	•		•	•			

NOTE : Please refer to the type plate at the rear of the TV set or the Identification Sticker on the carton box for reference to the version number for the set.

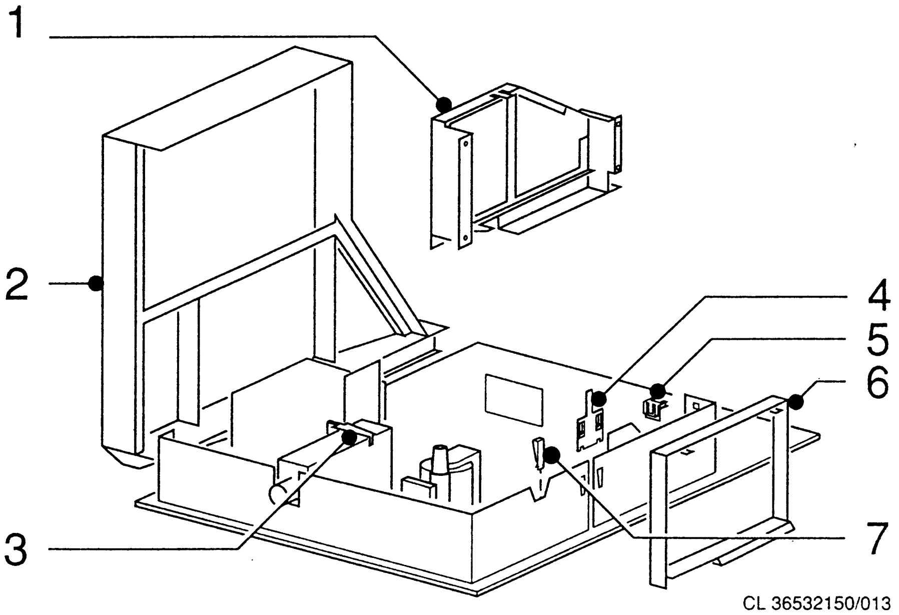
10. Spare parts list

Chassis 21"



CL 36532150/012
091193

Chassis 25"



CL 36532150/013
091193

10. Spare parts list / Stükliste / Liste des pièces

Main carrier 21 and 25" [A], [AA], [B], [C], [D]

Various

1	4822 404 31327	Bracket for TXT panels
2	4822 404 30359	Bracket for 2CS + I/O + ampl panel
3	4822 404 31356	Bracket for QSS panel
4	4822 404 21263	Bracket clamping heatsinks
5	4822 404 31363	Mains cord relief
6	4822 404 31357	Bracket for mains input panel (25")
7▲	4822 492 70289	Spring for SOPS tor 21" and line tors
	4822 492 62076	Spring for SOPS tor 25" and frame tors
▲	4822 404 31362	Spring for east/west transistor
	4822 404 31358	Spring for 6529 (21")
▲	4822 265 20366	1 pin header 2.35 mm
▲	4822 267 40646	2 pins header 2.35 mm
▲	4822 265 20441	3 pins header
	4822 265 31101	3 pins male BTB (AU)
	4822 264 40207	3 pins male WTB
	4822 417 50217	4 pins male BTB (AU)
	4822 265 30796	4 pins header (M5)
	4822 265 30378	4 pins male WTB
	4822 265 31181	5 pins male WTB (M25)
	4822 265 30934	5 pins header (M26)
	4822 267 50591	6 pins male BTB (AU)
	4822 290 40295	7 pins male WTB
	4822 264 50148	8 pins male BTB (AU)
	4822 265 40818	8 pins male WTB
▲	4822 532 61201	EHT cable spacer
▲	4822 276 13431	Mains switch
▲	4822 256 30496	Fuse holder
	4822 410 63149	Push button for 21" mains switch
1000	4822 210 10448	UV915E
1000	4822 210 10459	UV913/IEC
1015	4822 242 72197	OFWK2950M 38.9 MHz
1015	4822 242 81637	OFWK3952M 38.9 MHz
1105	4822 242 72547	5.5 MHz
1106	4822 242 72057	6.5 MHz
1204	4822 242 71207	4.5 MHz
1206	4822 242 81529	5.5 MHz
1207	4822 242 81301	6.5 MHz
1208	4822 153 30025	6.0 MHz
1208	4822 242 81529	5.5 MHz
1275	4822 242 81691	4.433619 MHz
1277	4822 242 81575	3.579500 MHz
1449▲	4822 071 54001	Fuse 400 mA T
1449▲	4822 071 55001	Fuse 500 mA T
1500▲	4822 070 33152	Fuse 3.15 AT
1540▲	4822 071 52502	Fuse 2.5 A T
1630	4822 242 81727	10MHz

-||-

2001	4822 126 12642	10nF 20% 50V
2007	4822 121 41856	22nF 5% 250V
2008	5322 121 42386	100nF 5% 63V
2009	4822 126 12642	10nF 20% 50V
2010	4822 124 40202	1500µF 20% 16V
2016	4822 126 12642	10nF 20% 50V
2017	4822 122 31348	120pF 2% 100V
2026	4822 122 31056	12pF 2% 100V
2027	4822 126 12642	10nF 20% 50V
2101	4822 122 33532	3.3nF 5% 50V
2102	4822 122 31072	47pF 2% 100V
2102	4822 126 12789	82pF 5% 50V
2103	4822 121 51231	820pF 1% 400V
2104	4822 124 40248	10µF 20% 63V
2112	4822 122 31072	47pF 2% 100V
2112	4822 126 12519	330pF 10%
2123	4822 126 12639	2.2nF 20%
2208	4822 122 33449	47nF 30% 50V
2212	5322 121 42386	100nF 5% 63V
2213	4822 121 42868	220nF 5% 50V
2219	4822 121 51319	1µF 10% 63V
2220▲	4822 124 40433	47µF 20% 25V
2221	5322 121 42386	100nF 5% 63V
2222	4822 124 41576	2.2µF 20% 50V
2223	5322 121 42386	100nF 5% 63V
2224	4822 124 41643	100µF 20% 16V
2225	4822 126 12643	22nF 20% 50V
2228	4822 121 51252	470nF 5% 63V
2236	5322 122 32491	1nF 20% 100V
2243	4822 126 12643	22nF 20% 50V
2245	5322 121 42386	100nF 5% 63V
2246	4822 121 42408	220nF 5% 63V
2248	5322 122 32491	1nF 20% 100V
2249	5322 122 32491	1nF 20% 100V
2251	4822 126 12643	22nF 20% 50V
2253	4822 126 12643	22nF 20% 50V
2254	5322 124 41431	22µF 20% 35V
2256	5322 121 42386	100nF 5% 63V
2257	5322 121 42386	100nF 5% 63V
2260	4822 122 31061	18pF 2% 100V
2261	4822 126 12643	22nF 20% 50V
2262▲	4822 124 40433	47µF 20% 25V
2264	4822 126 12643	22nF 20% 50V
2265	4822 124 41576	2.2µF 20% 50V
2272	4822 126 12641	4.7nF 20%
2273	5322 121 42386	100nF 5% 63V
2275	5322 122 32334	220pF 10% 100V
2277	5322 122 32334	220pF 10% 100V
2280	4822 121 43526	47nF 5% 250V
2281	5322 122 32491	1nF 20% 100V
2282	5322 122 32491	1nF 20% 100V
2283	5322 122 32491	1nF 20% 100V
2284	4822 121 43526	47nF 5% 250V
2285	4822 121 43526	47nF 5% 250V
2401	4822 122 31176	390pF 10% 500V
2401	4822 126 12791	390pF 10% 50V
2402	5322 121 42386	100nF 5% 63V
2403	4822 126 11134	5.6nF 10% 50V
2404	4822 124 21511	2200µF 20% 25V
2404	4822 124 40785	3300µF 20% 25V
2405	4822 124 21212	15µF 20% 40V
2405	5322 124 41431	22µF 20% 35V
2414	4822 126 12639	2.2nF 20%
2415	4822 124 80059	100µF 20% 25V
2416	4822 121 43526	47nF 5% 250V
2421	4822 122 33305	2.7nF 5% 50V
2422	4822 121 51252	470nF 5% 63V
2423	4822 126 12864	2.2nF 2% 250V
2424	4822 124 40242	1µF 20% 63V
2425	4822 126 12642	10nF 20% 50V
2426	5322 121 42386	100nF 5% 63V
2427	4822 126 12641	4.7nF 20%
2428	4822 122 30045	27pF 2% 100V
2431	4822 122 33449	47nF 30% 50V
2432	4822 122 33449	47nF 30% 50V
2433	4822 122 33449	47nF 30% 50V
2439	4822 122 31175	1nF 10% 500V
2439	4822 126 11308	47pF 5% 500V
2440	4822 126 12519	330pF 10%
2441▲	4822 126 11382	1nF 10% 1KV
2442	4822 122 32986	560pF 50
2442	4822 126 13172	560pF 10% 500V
2443▲	4822 124 40196	220µF 20% 16V
2444	4822 121 43139	180nF 10% 100V
2445▲	4822 126 12269	680pF 10% (HR) 2KV
2446▲	4822 121 70355	5.6nF 5% 2KV
2446▲	4822 121 70465	11nF 5% 1.6KV
2447▲	4822 126 12272	1nF 10% (HR) 2KV
2447▲	4822 126 12273	1200pF 10% (HR) 2KV
2448	4822 124 22583	47µF 160V
2449▲	4822 126 11382	1nF 10% 1KV
2450▲	4822 121 42073	390 nF 10% 400V
2450	4822 121 42442	560nF 200V
2451	5322 124 40641	10µF 20% 100V
2452	4822 124 22582	2.2mF 20% 16V
2452	4822 124 40432	1500µF 20% 25V
2453	4822 124 41747	680µF 20% 35V
2456	4822 126 11308	47pF 5% 500V
2457▲	4822 121 43405	18nF 10% 250V
2457	4822 121 70466	82nF 10% 250V
2458▲	4822 121 70355	5.6nF 5% 2KV
2460	4822 121 51385	33nF 20% 100V
2470	[illegible]	[illegible]
2472	4822 126 12792	2.2nF 10% 500V
2480	4822 124 80604	47µF 20% 50V
2481	4822 121 43526	47nF 5% 250V
2482	4822 124 40242	1µF 20% 63V
2483	4822 124 40753	6.8µF 20% 63V
2484	4822 126 12639	2.2nF 20%
2500▲	4822 121 51457	470nF 10% 275V
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 126 12793	2.2nF 10% 2KV
2504	4822 126 12793	2.2nF 10% 2KV
2505	4822 124 41764	100µF 20% 400V
2505▲	4822 124 42168	330µF 400V
2505	4822 124 80855	330µF 20% 400V
2513	4822 126 12792	2.2nF 10% 500V
2520▲	4822 126 12269	680pF 10% (HR) 2KV
2521▲	4822 126 11254	330pF 10% 2KV
2521▲	4822 126 12272	1nF 10% (HR) 2KV
2523▲	4822 126 12269	680pF 10% (HR) 2KV
2525▲	4822 122 40602	1nF 20% 400V
2526	4822 121 42071	3.9nF 10% 400V
2527▲	4822 122 40602	1nF 20% 400V
2528▲	4822 122 40602	1nF 20% 400V
2530▲	4822 126 11382	1nF 10% 1KV
2530▲	4822 126 12272	1nF 10% (HR) 2KV
2531	4822 124 22583	47µF 160V
2540	4822 124 42106	1500µF 20% 35V
2541▲	4822 126 11382	1nF 10% 1KV
2561	5322 124 41431	22µF 20% 35V
2605	4822 124 41566	3.3µF 20% 50V
2606	4822 126 12643	22nF 20% 50V
2607	4822 122 33293	100pF 5% 50V
2608	5322 122 32356	820pF 10% 100V
2610	5322 122 32356	820pF 10% 100V
2615	5322 122 32356	820pF 10% 100V
2620	4822 124 40242	1µF 20% 63V
2621	4822 126 12643	22nF 20% 50V
2624	5322 122 32356	820pF 10% 100V
2625	5322 122 32356	820pF 10% 100V
2626	5322 122 32356	820pF 10% 100V
2627	5322 122 32356	820pF 10% 100V
2628	5322 122 32356	820pF 10% 100V
2636	4822 126 12642	10nF 20% 50V
2638	5322 122 32491	1nF 20% 100V
2640	4822 122 30045	27pF 2% 100V
2648	4822 124 40248	10µF 20% 63V
2655	5322 122 32334	220pF 10% 100V
2656	5322 121 42661	330nF 5% 63V
2682▲	4822 124 40433	47µF 20% 25V
2683	5322 121 42386	100nF 5% 63V
2685	4822 124 41596	22µF 20% 50V
2687	4822 124 40242	1µF 20% 63V
2688	5322 122 32491	1nF 20% 100V
2692	4822 124 40242	1µF 20% 63V
2695	4822 124 41596	22µF 20% 50V
2700	4822 124 40753	6.8µF 20% 63V
2703▲	4822 124 40433	47µF 20% 25V
2711	4822 126 12643	22nF 20% 50V
2714	5322 122 32334	220pF 10% 100V
2721	5322 122 32143	22pF 100V
2722	5322 122 32143	22pF 100V
2726	4822 122 33293	100pF 5% 50V
2727	4822 122 33293	100pF 5% 50V
2728	4822 122 33293	100pF 5% 50V

-▭-

3000	4822 116 52263	2k7 5% 0.5W
3004	4822 116 52207	1k2 5% 0.5W
3005	4822 116 52207	1k2 5% 0.5W
3010▲	4822 052 10109	10Ω 5% 0.33W
3016▲	4822 116 52269	3k3 5% 0.5W
3017	4822 116 52257	22k 5% 0.5W
3018▲	4822 116 52256	2k2 5% 0.5W
3106	4822 116 52228	680Ω 5% 0.5W
3113	4822 050 11002	1k 1% 0.4W
3128	4822 050 11002	1k 1% 0.4W
3198	4822 116 52234	100k 5% 0.5W
3198	4822 116 52285	470k 5% 0.5W
3198	4822 116 52291	56k 5% 0.5W
3198	4822 116 52297	68k 5% 0.5W
3198	4822 116 52303	8k2 5% 0.5W
3199	4822 116 52251	18k 5% 0.5W
3199	4822 116 52257	22k 5% 0.5W
3201	4822 050 11002	1k 1% 0.4W
3204▲	4822 116 52256	2k2 5% 0.5W
3205▲	4822 116 52256	2k2 5% 0.5W
3206	4822 116 52175	100Ω 5% 0.5W
3206	4822 116 52213	180Ω 5% 0.5W
3207▲	4822 116 52269	3k3 5% 0.5W
3208	4822 050 11002	1k 1% 0.4W
3210	4822 116 52234	100k 5% 0.5W
3211▲	4822 050 23301	330Ω 1% 0.6W
3212▲	4822 116 52283	4k7 5% 0.5W
3213	4822 116 52234	100k 5% 0.5W
3214	4822 050 11002	1k 1% 0.4W
3225▲	4822 116 52283	4k7 5% 0.5W
3236	4822 116 52233	10k 5% 0.5W
3250	4822 116 52233	10k 5% 0.5W
3251	4822 116 52233	10k 5% 0.5W
3252	4822 116 52176	10Ω 5% 0.5W
3253	4822 116 52176	10Ω 5% 0.5W
3254	4822 116 52226	560Ω 5% 0.5W
3255	4822 050 11002	1k 1% 0.4W
3256	4822 050 11002	1k 1% 0.4W
3257	4822 050 11002	1k 1% 0.4W
3259	4822 050 11002	1k 1% 0.4W
3261	4822 116 52271	33k 5% 0.5W
3262	4822 116 52296	6k8 5% 0.5W
3263	4822 116 52244	15k 5% 0.5W
3264	4822 100 20166	10k 30% LIN 0.1W
3265	4822 116 52207	1k2 5% 0.5W
3267	4822 116 52244	15k 5% 0.5W
3268	4822 116 52233	10k 5% 0.5W
3270	4822 116 52264	27k 5% 0.5W
3271▲	4822 116 52283	4k7 5% 0.5W
3273	4822 116 52234	100k 5% 0.5W
3278▲	4822 116 52283	4k7 5% 0.5W
3283	4822 050 11002	1k 1% 0.4W
3284	4822 050 11002	1k 1% 0.4W
3400▲	4822 116 52256	2k2 5% 0.5W
3400▲	4822 116 52283	4k7 5% 0.5W
3401	4822 116 52243	1k5 5% 0.5W
3403	4822 116 52263	2k7 5% 0.5W
3404	4822 116 52243	1k5 5% 0.5W
3405	4822 116 52182	15Ω 5% 0.5W
3405	4822 116 81154	2Ω2 5% 0.5W
3406	4822 116 52244	15k 5% 0.5W
3406	4822 116 52257	22k 5% 0.5W
3407	4822 116 52264	27k 5% 0.5W
3407	4822 116 52271	33k 5% 0.5W
3408	4822 273 30395	3 pos switch 21"
3408	4822 273 30397	3 pos switch 25"
3409	4822 116 52276	3k9 5% 0.5W
3410	4822 100 11391	330Ω 30% LIN 0.1W
3411	4822 116 81039	1Ω8 5% 0.5W
3412	4822 116 81039	1Ω8 5% 0.5W
3413▲	4822 053 10221	220Ω 5% 1W
3414▲	4822 116 52256	2k2 5% 0.5W
3415▲	4822 116 52256	2k2 5% 0.5W
3416▲	4822 117 10423	390Ω 5% 2W
3420	4822 100 20166	10k 30% LIN 0.1W
3421	4822 116 52305	820k 5% 0.5W
3422	4822 116 52251	18k 5% 0.5W
3423	4822 116 52195	47Ω 5% 0.5W
3424	4822 053 10391	390Ω 5% 1W
3425	4822 116 52278	390k 5% 0.5W
3426	4822 116 52298	680k 5% 0.5W
3427	4822 116 52305	820k 5% 0.5W
3428	4822 116 52257	22k 5% 0.5W
3429	4822 116 52234	100k 5% 0.5W
3430	4822 116 52235	1M 5% 0.5W
3432	4822 116 52298	680k 5% 0.5W
3433▲	4822 116 52272	330k 5% 0.5W
3434	4822 116 52263	2k7 5% 0.5W
3435	4822 116 52263	2k7 5% 0.5W
3436	4822 050 24705	4M7 1% 0.6W
3437	4822 116 52296	6k8 5% 0.5W
3438	4822 116 52303	8k2 5% 0.5W
3439▲	4822 116 52269	3k3 5% 0.5W
3440▲	4822 116 52199	68Ω 5% 0.5W
3441	4822 053 10223	22k 5% 1W
3442	4822 116 52289	5k6 5% 0.5W
3443▲	4822 050 21802	1k8 1% 0.6W
3444	4822 053 11562	5k6 5% 2W
3445	4822 116 52195	47Ω 5% 0.5W
3446	4822 116 52213	180Ω 5% 0.5W
3446	4822 116 52216	240Ω 5% 0.5W
3447	4822 116 52296	6k8 5% 0.5W
3448▲	4822 052 10108	1Ω 5% 0.33W
3448▲	4822 052 11108	1Ω 5% 0.5W
3449▲	4822 050 21802	1k8 1% 0.6W
3450	4822 050 22202	2k2 1% 0.6W
3451	4822 116 52271	33k 5% 0.5W
3452▲	4822 052 11108	1Ω 5% 0.5W
3453▲	4822 052 10222	2k2 5% 0.33W
3454▲	4822 052 10222	2k2 5% 0.33W
3456▲	4822 053 20334	330k 5% 0.25W
3460	4822 116 52254	20k 5% 0.5W
3470▲	4822 052 10828	8Ω2 5% 0.33W
3480▲	4822 052 10108	1Ω 5% 0.33W
3481	4822 116 52284	47k 5% 0.5W
3482	4822 116 52284	47k 5% 0.5W
3483▲	4822 116 52283	4k7 5% 0.5W
3484	4822 100 11213	22k 30% LIN 0.1W
3485	4822 050 11002	1k 1% 0.4W
3486	4822 116 52291	56k 5% 0.5W
3487	4822 116 52235	1M 5% 0.5W
3488	4822 116 52234	100k 5% 0.5W
3501	4822 116 40204	30Ω 30%
3501	4822 116 40247	18Ω 270V
3502	4822 111 20403	470Ω 10%
3503	4822 113 80646	1Ω2 10% 5W
3503	4822 113 80647	1Ω2 5% 5W
3504▲	4822 053 21475	4M7 5% 0.5W
3505	4822 113 80646	1Ω2 10% 5W
3505	4822 113 80647	1Ω2 5% 5W
3506	4822 053 11273	27k 5% 2W
3507	4822 116 52263	2k7 5% 0.5W
3519	4822 117 10422	0.33Ω 5% 3W
3520	4822 113 80637	1.5k 5W
3521▲	4822 052 10222	2k2 5% 0.33W
3522	4822 116 52206	120Ω 5% 0.5W
3522	4822 116 52221	360Ω 5% 0.5W
3525▲	4822 116 60127	4M 7 5% 1W
3526	4822 053 11473	47k 5% 2W
3528▲	4822 052 10108	1Ω 5% 0.33W
3529	4822 116 52298	680k 5% 0.5W
3530	4822 116 52231	820Ω 5% 0.5W
3542	4822 116 52191	33Ω 5% 0.5W
3560▲	4822 050 21501	150Ω 1% 0.6W
3560	4822 116 52213	180Ω 5% 0.5W
3561	4822 116 52195	47Ω 5% 0.5W
3562	4822 116 52224	470Ω 5% 0.5W
3563▲	4822 116 52215	220Ω 5% 0.5W
3565	4822 116 52233	10k 5% 0.5W
3598▲	4822 116 52272	330k 5% 0.5W
3603▲	4822 116 52269	3k3 5% 0.5W
3604	4822 116 52175	100Ω 5% 0.5W
3605	4822 116 52228	680Ω 5% 0.5W
3608	4822 116 52175	100Ω 5% 0.5W
3609	4822 116 52175	100Ω 5% 0.5W
3611	4822 116 52175	100Ω 5% 0.5W
3612	4822 116 52304	82k 5% 0.5W
3617	4822 116 52175	100Ω 5% 0.5W
3622	4822 116 52284	47k 5% 0.5W
3625	4822 050 11002	1k 1% 0.4W
3626	4822 116 52284	47k 5% 0.5W
3627▲	4822 116 52283	4k7 5% 0.5W
3633	4822 050 11002	1k 1% 0.4W
3634	4822 116 52297	68k 5% 0.5W
3635	4822 116 52233	10k 5% 0.5W
3636	4822 050 11002	1k 1% 0.4W
3637	4822 116 52278	390k 5% 0.5W
3638	4822 116 52258	220k 5% 0.5W
3640	4822 116 52297	68k 5% 0.5W
3641	4822 116 52271	33k 5% 0.5W
3646	4822 116 52175	100Ω 5% 0.5W
3647	4822 116 52211	150Ω 5% 0.5W
3648	4822 116 52261	24k 5% 0.5W
3649	4822 116 52238	12k 5% 0.5W
3650	4822 116 52244	15k 5% 0.5W
3652	4822 116 52258	220k 5% 0.5W
3653	4822 116 52211	150Ω 5% 0.5W
3654	4822 116 52244	15k 5% 0.5W
3656	4822 116 52233	10k 5% 0.5W
3661	4822 116 52249	1k8 5% 0.5W
3662	4822 116 52289	5k6 5% 0.5W
3670	4822 116 52226	560Ω 5% 0.5W
3671	4822 116 52226	560Ω 5% 0.5W
3685	4822 116 52284	47k 5% 0.5W
3687	4822 116 52284	47k 5% 0.5W
3688	4822 116 52175	100Ω 5% 0.5W
3689	4822 116 52175	100Ω 5% 0.5W
3690	4822 116 52175	100Ω 5% 0.5W
3691	4822 116 52284	47k 5% 0.5W
3693	4822 116 52284	47k 5% 0.5W
3694	4822 116 52195	47Ω 5% 0.5W
3696▲	4822 116 52283	4k7 5% 0.5W
3697	4822 116 52175	100Ω 5% 0.5W
3698	4822 116 52175	100Ω 5% 0.5W
3699	4822 116 52303	8k2 5% 0.5W
3700	4822 116 52284	47k 5% 0.5W
3702	4822 116 52239	120k 5% 0.5W
3703	4822 116 52284	47k 5% 0.5W
3704	4822 116 52233	10k 5% 0.5W
3706	4822 116 52252	180k 5% 0.5W
3707▲	4822 116 52256	2k2 5% 0.5W
3708	4822 116 52234	100k 5% 0.5W
3709	4822 050 11002	1k 1% 0.4W
3710	4822 116 52222	390Ω 5% 0.5W
3713	4822 116 52278	390k 5% 0.5W
3715	4822 116 52249	1k8 5% 0.5W
3717▲	4822 116 52269	3k3 5% 0.5W
3718▲	4822 116 52269	3k3 5% 0.5W
3719	4822 116 52233	10k 5% 0.5W
3726▲	4822 116 52283	4k7 5% 0.5W
3727▲	4822 116 52283	4k7 5% 0.5W
3728▲	4822 116 52283	4k7 5% 0.5W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5014	4822 157 63065	0.68µH
5020	4822 157 70439	Toko
5060	4822 157 71112	3.3µH 10%
5100	4822 157 71039	120µH 5%
5112▲	4822 157 52286	22µH 10%
5112	4822 157 53906	47µH 10%
5206	4822 152 20667	5.6µH 10%
5206	4822 157 53303	12µH 10%
5209▲	4822 157 52265	100µH 10%
5260	4822 157 71119	Toko
5286	4822 152 20667	5.6µH 10%
5286	4822 157 53303	12µH 10%
5287	4822 152 20667	5.6µH 10%
5287	4822 157 53303	12µH 10%
5288	4822 152 20667	5.6µH 10%
5288	4822 157 53303	12µH 10%
5424	4822 157 60122	4.7µH 10%
5441	4822 146 21116	Line driver trafo 21"
5441	4822 146 10111	Line driver trafo 25"
5443▲	4822 157 51462	10µH 10%
5445▲	4822 140 10486	Line trafo 21"
5445▲	4822 140 10494	Line trafo 25"
5449▲	4822 157 51462	10µH 10%
5454	4822 157 63702	Lin. corrector 21"
5454	4822 157 71118	Lin. corrector 25"
5481	4822 157 62336	100µH 10%
5500▲	4822 157 70699	Mains filter
5513	4822 157 60171	Bead
5520	4822 157 60171	Bead
5522	4822 157 60122	4.7µH 10%
5523	4822 157 71113	10µH 10%
5525▲	4822 146 31347	SOPS trafo 21"
5525▲	4822 146 31348	SOPS trafo 25"
5529	4822 157 71121	Bead
5530	4822 157 60171	Bead
5530	4822 157 71121	Bead
5531	4822 157 63698	33µH
5531	4822 158 10551	27µH
5532	4822 157 60171	Bead
5540	4822 157 60171	Bead
5543	4822 157 52259	5.6µH
5546	4822 157 60171	Bead
5620▲	4822 157 52285	6.8µH 10%
5620	4822 157 71112	3.3µH 10%
5621▲	4822 157 52285	6.8µH 10%
5621	4822 157 71112	3.3µH 10%
5711▲	4822 157 52285	6.8µH 10%
5720▲	4822 157 52286	22µH 10%

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6016	5322 130 34955	BA482
6254	4822 130 34233	BZX79-C5V1
6280▲	4822 130 30621	1N4148
6283	4822 130 34174	BZX79-C4V7
6284▲	4822 130 30621	1N4148
6286▲	4822 130 30621	1N4148
6287▲	4822 130 30621	1N4148
6288▲	4822 130 30621	1N4148
6412	4822 130 34189	BAV20
6415▲	4822 130 30621	1N4148
6416	4822 130 42488	BYD33D
6417▲	4822 130 34173	BZX79-C5V6
6420	5322 130 34563	BZX79-C2V7
6423	4822 130 34382	BZX79-C8V2
6425	4822 130 31983	BAT85
6426	4822 130 31983	BAT85
6427	4822 130 31983	BAT85
6428	4822 130 34382	BZX79-C8V2
6438	4822 130 34328	BZX79-B30
6439▲	4822 130 31631	BYV10-20
6441▲	4822 130 30621	1N4148
6442	4822 130 42606	BYD33J
6443	4822 130 42489	BYD33G
6445▲	4822 130 80432	BY627
6446▲	4822 130 83457	BYD34M
6446	5322 130 31559	BY448
6447	4822 130 42488	BYD33D
6447▲	4822 130 83457	BYD34M
6449	4822 130 42489	BYD33G
6450	4822 130 42488	BYD33D
6451	4822 130 42488	BYD33D
6452	4822 130 42488	BYD33D
6455	4822 130 34382	BZX79-C8V2
6470	4822 130 42489	BYD33G
6480▲	4822 130 61219	BZX79-C10
6500	4822 130 82158	D3SBA60
6506	4822 130 34499	BZX79-C20
6507	4822 130 80928	BZX79-C30
6508	4822 130 80928	BZX79-C30
6512▲	4822 130 30621	1N4148
6513▲	4822 130 30621	1N4148
6519	5322 130 31574	BZT03-C15
6520	4822 130 42606	BYD33J
6526▲	4822 130 32896	BYD33M
6529▲	4822 130 33531	BY229F-600
6531▲	4822 130 33531	BY229F-600
6540	4822 130 81104	MA689
6541	4822 130 81104	MA689
6542▲	4822 130 34173	BZX79-C5V6
6562	4822 130 34174	BZX79-C4V7
6565	5322 130 31504	BZX79-C3V3
6606▲	4822 130 34173	BZX79-C5V6
6607▲	4822 130 30621	1N4148
6618	4822 130 34382	BZX79-C8V2
6632▲	4822 130 30621	1N4148
6633	4822 130 34174	BZX79-C4V7
6645▲	4822 130 30621	1N4148
6648	4822 130 82037	HZT33
6715▲	4822 130 30621	1N4148

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7000	4822 209 10892	LA7910
7109	4822 130 40938	BC548
7212▲	4822 130 44197	BC558B
7213▲	4822 130 44197	BC558B
7214	4822 130 40941	BC558
7215	4822 130 40938	BC548
7218	5322 209 86283	L7808CP
7225	4822 209 32532	TDA8362C/N3
7245	4822 209 32359	TDA8395/N1
7255	4822 209 31714	TDA4661/V2
7270	4822 130 40938	BC548
7278	4822 130 41376	BF494B
7400	4822 209 33321	TDA3654/N3
7400	4822 209 60955	TDA3653B/N1
7423	4822 130 40938	BC548
7430	5322 130 60803	BST72A
7439	5322 130 44647	BC368
7440	4822 130 41782	BF422
7440	4822 130 42159	BF819
7445	4822 130 60851	2SC3973B
7445	4822 130 63569	BU1508DX
7446	4822 130 41646	BF423
7480	4822 130 40824	BD136
7481	4822 130 40938	BC548
7513▲	4822 130 63409	STP6N60FI
7513▲	4822 130 63499	STH12N60FI
7563	4822 130 40941	BC558
7600	4822 209 33322	PCA84C844P/133
7634	4822 130 40937	BC548B
7635	4822 130 40937	BC548B
7636	4822 130 40938	BC548
7647	4822 130 41594	PH2369
7710	4822 209 52316	ST24C04B1

Power supply control panel [A], [AA]

Various

	4822 212 31337	Power supply control panel 21"
	4822 212 31345	Power supply control panel 25"
▲	4822 265 40469	6 pins female BTB (AU)

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2506	5322 121 10472	47MU/25
2507	4822 121 43526	47nF 5% 250V
2508	4822 121 43187	27nF 5% 250V
2510	5322 122 32491	1nF 20% 100V
2510	5322 122 32334	220pF 10% 100V
2511	5322 122 32491	1nF 20% 100V
2511	5322 122 32334	220pF 10% 100V
2512	4822 121 51319	1µF 10% 63V
2514	4822 126 12639	2.2nF 20%
2515	4822 126 12639	2.2nF 20%
2516	4822 124 80371	4.7µF 50V
2517	4822 126 11157	470pF 10% 500V
2518	4822 126 12641	4.7nF 20%

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3508	4822 116 52249	1k8 5% 0.5W
3510▲	4822 116 52283	4k7 5% 0.5W
3511	4822 116 52264	27k 5% 0.5W
3512	4822 100 20166	10k 30%LIN 0.1W
3514	4822 050 11002	1k 1% 0.4W
3515▲	4822 116 52256	2k2 5% 0.5W
3515	4822 116 52231	820Ω 5% 0.5W
3517▲	4822 052 10339	33Ω 5% 0.33W
3517▲	4822 052 10229	22Ω 5% 0.33W
3518▲	4822 052 10471	470Ω 5% 0.33W
3518▲	4822 052 10151	150Ω 5% 0.33W
3523	4822 116 52245	150k 5% 0.5W
3523	4822 116 52278	390k 5% 0.5W
3524	4822 050 11002	1k 1% 0.4W
3524	4822 116 52243	1k5 5% 0.5W
4xxx	4822 051 10008	0Ω 5% 0.25W

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6509	4822 130 34174	BZX79-C4V7
6510	4822 130 31024	BZX79-B18
6511▲	4822 130 30621	1N4148

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7510	4822 209 32347	UC3842B
7512	5322 130 60803	BST72A

Mains input panel 25" [AA]

Various

	4822 212 31344	Mains input panel 25"
▲	4822 276 13431	Mains switch
▲	4822 256 30496	Fuse holder
▲	4822 265 20366	1 pin header 2.35 mm
▲	4822 267 40646	2 pins header 2.35 mm
▲	4822 265 20441	3 pins header
	4822 410 63148	Push button for mains switch
1500▲	4822 070 33152	Fuse 3.15 A T

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2500▲	4822 121 51457	470nF 10% 275V
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 121 42059	100nF 10% 400V
2504	4822 126 12793	2.2nF 10% 2KV
2509▲	4822 124 41525	100µF 20% 25V
2527▲	4822 122 33665	3.3nF 20% 125V
2528▲	4822 122 33665	3.3nF 20% 125V

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3501▲	4822 116 40249	PTC 20Ω 265V
3502	4822 111 20403	470Ω 10%
3503▲	4822 113 80603	1.5Ω 10% 7W
3504▲	4822 053 21475	4M7 5% 0.5W
3505▲	4822 113 80603	1.5Ω 10% 7W
3506	4822 053 11273	27k 5% 2W
3507	4822 116 52263	2k7 5% 0.5W
3509	4822 116 40247	18Ω 270V
4xxx	4822 051 10008	0Ω 5% 0.25W

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5500▲	4822 157 70699	Mains filter

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6500	4822 130 80928	BZX79-C30
6501	4822 130 80928	BZX79-C30
6502▲	4822 130 80858	1N5062
6503▲	4822 130 80858	1N5062
6504▲	4822 130 80858	1N5062
6505▲	4822 130 80858	1N5062
6506	4822 130 34499	BZX79-C20

Scan protection panel 21" [A]

Various

	4822 212 31423	Scan protection panel 21"
	4822 265 30742	4 pins F-pin connector

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3436	4822 116 52303	8k2 5% 0.5W
3437	4822 116 52249	1k8 5% 0.5W
3438	4822 116 52259	2k4 5% 0.5W

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6438	4822 130 31024	BZX79-B18
6442	4822 130 42606	BYD33J

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7446	4822 130 41646	BF423

Spare parts list / Stükliste / Liste des pièces

CRT panel (narrow neck) [E], [EE]

Various

	4822 212 31347	CRT panel NN 21"
	4822 212 31343	CRT panel NN 25"
▲	4822 255 70254	Holder valve
▲	4822 265 20366	1 pin header 2.35 mm
	4822 265 30934	5 pins header
	4822 265 31153	5 pins header 21" (black)

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2302	4822 126 12643	22nF 20% 50V
2304	5322 122 32311	470pF 10% 100V
2304	4822 126 12519	330pF 10%
2306	4822 124 80495	4.7µF 20%
2309	4822 121 41926	33nF 5% 630V
2317	5322 122 32311	470pF 10% 100V
2317	4822 126 12519	330pF 10%
2330	5322 122 32311	470pF 10% 100V
2330	4822 126 12519	330pF 10%
2337	4822 126 12833	4.7nF 20% 2KV
2337	4822 121 70093	33nF 5% 2KV

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3300▲	4822 052 11101	100Ω 5% 0.5W
3300▲	4822 052 10101	100Ω 5% 0.33W
3301	4822 116 52252	180k 5% 0.5W
3301	4822 116 52265	270k 5% 0.5W
3302	4822 053 12123	12k 5% 3W
3303	4822 050 21502	1k5 1% 0.6W
3304▲	4822 116 52197	56Ω 5% 0.5W
3304	4822 116 52175	100Ω 5% 0.5W
3305▲	4822 116 52219	330Ω 5% 0.5W
3305▲	4822 116 52217	270Ω 5% 0.5W
3306	4822 116 52246	1k6 5% 0.5W
3307	5322 100 11542	4k7 30% LIN 0.1W
3308	4822 116 52175	100Ω 5% 0.5W
3309	4822 116 52211	150Ω 5% 0.5W
3310	4822 116 52289	5k6 5% 0.5W
3311	4822 116 52289	5k6 5% 0.5W
3312	4822 116 52289	5k6 5% 0.5W
3313	5322 100 11541	2k2 30% LIN 0.1W
3314	5322 100 11541	2k2 30% LIN 0.1W
3315	4822 053 12123	12k 5% 3W
3316	4822 050 21502	1k5 1% 0.6W
3317▲	4822 116 52197	56Ω 5% 0.5W
3317	4822 116 52175	100Ω 5% 0.5W
3318▲	4822 116 52219	330Ω 5% 0.5W
3318▲	4822 116 52217	270Ω 5% 0.5W
3319	4822 116 52246	1k6 5% 0.5W
3320	5322 100 11542	4k7 30% LIN 0.1W
3321	4822 116 52175	100Ω 5% 0.5W
3322	4822 116 52222	390Ω 5% 0.5W
3323	4822 116 52211	150Ω 5% 0.5W
3324	4822 116 52243	1k5 5% 0.5W
3325▲	4822 116 52269	3k3 5% 0.5W
3325▲	4822 116 52256	2k2 5% 0.5W
3326▲	4822 116 52217	270Ω 5% 0.5W
3327	4822 116 52228	680Ω 5% 0.5W
3328	4822 053 12123	12k 5% 3W
3329	4822 050 21502	1k5 1% 0.6W
3330▲	4822 116 52197	56Ω 5% 0.5W
3330	4822 116 52175	100Ω 5% 0.5W
3331	4822 116 52211	150Ω 5% 0.5W
3332▲	4822 116 52219	330Ω 5% 0.5W
3332▲	4822 116 52217	270Ω 5% 0.5W
3333	4822 116 52246	1k6 5% 0.5W
3334	5322 100 11542	4k7 30% LIN 0.1W
3335	4822 116 52175	100Ω 5% 0.5W
3336	4822 050 21502	1k5 1% 0.6W
3337	4822 050 21502	1k5 1% 0.6W
3338▲	4822 116 52283	4k7 5% 0.5W
3339▲	4822 116 52283	4k7 5% 0.5W
3340▲	4822 116 52283	4k7 5% 0.5W
3344▲	4822 052 10188	1Ω8 5% 0.33W
3345▲	4822 052 10188	1Ω8 5% 0.33W
4xxx	*4822 051 10008*	*0Ω 5% 0.25W*

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5306	4822 157 71114	470µH 10%
5319	4822 157 71114	470µH 10%
5328	4822 157 71114	470µH 10%
5338	4822 157 70702	8.2µH 10%
5338	4822 157 52136	82µH 10%

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6305	4822 130 34174	BZX79-C4V7
6306▲	4822 130 32896	BYD33M
6307	4822 130 34379	BZX79-C27
6308	4822 130 34379	BZX79-C27
6318	4822 130 34174	BZX79-C4V7
6319▲	4822 130 32896	BYD33M
6327	4822 130 34174	BZX79-C4V7
6328▲	4822 130 32896	BYD33M

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7305	4822 130 41773	BF869
7306	4822 130 40938	BC548
7306	4822 130 41376	BF494B
7318	4822 130 41773	BF869
7319	4822 130 40938	BC548
7319	4822 130 41376	BF494B
7325	4822 130 40941	BC558
7327	4822 130 41773	BF869
7328	4822 130 40938	BC548
7328	4822 130 41376	BF494B

Top control [F]

1024▲	4822 212 31341	Top control panel
	4822 276 13499	Switch push button

IR + LED panel [F]

1025▲	4822 212 31335	IR+LED panel
1500	4822 212 30842	IR receiver

-||-

2500	4822 124 41643	100µF 20% 16V

-▶|-

6500	4822 130 82029	LTL307P

Headphone panel [F]

1026▲	4822 212 31336	Headphone panel
	4822 267 41151	Headphone plug
	4822 265 31072	5 pins male (H18)

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2525	4822 124 41643	100µF 20% 16V
2526	4822 124 41643	100µF 20% 16V

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3531▲	4822 050 28209	82Ω 1% 0.6W
3532▲	4822 116 52219	330Ω 5% 0.5W
3533▲	4822 050 28209	82Ω 1% 0.6W
3534▲	4822 116 52219	330Ω 5% 0.5W

Volume control panel [F]

Various

	4822 212 31354	Vol control panel 21"
	4822 212 31357	Vol control panel 25"

-||-

2686	4822 124 40242	1µF 20% 63V
2689	5322 122 32491	1nF 20% 100V

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3681	4822 050 22203	22k 1% 0.6W
3682	4822 116 52257	22k 5% 0.5W
3683	4822 116 52257	22k 5% 0.5W
3684▲	4822 050 21003	10k 1% 0.6W
3686▲	4822 050 21003	10k 1% 0.6W
3711	4822 116 52284	47k 5% 0.5W

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7684	4822 130 40938	BC548
7685	4822 130 40938	BC548
7686	4822 130 40938	BC548

QSS panel [G]

Various

	4822 212 31352	QSS panel 2CS DK/NICAM I
	4822 212 31338	QSS panel 2CS BG
	4822 212 31353	QSS panel NICAM BG/79
	4822 265 30351	5 pins male WTB (Q4)
	4822 267 41154	4 pins female BTB (Q3)
1000	4822 242 81635	Saw filter
1001	4822 242 80292	6.74 MHz
1001	4822 242 70485	5.74 MHz
1002	4822 242 72059	6.5 MHz
1002	4822 242 70714	5.5 MHz

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2000▲	4822 124 40433	47µF 20% 25V
2002▲	4822 124 40246	4.7µF 20% 63V
2002	4822 124 41576	2.2µF 20% 50V
2002	4822 124 41576	2.2µF 20% 50V
2003▲	4822 124 40246	4.7µF 20% 63V
2003	4822 124 41576	2.2µF 20% 50V
2003	4822 124 41576	2.2µF 20% 50V
2007	4822 121 51231	820pF 1% 400V
2008	4822 121 51231	820pF 1% 400V
2009▲	4822 124 40246	4.7µF 20% 63V
2010▲	4822 124 40246	4.7µF 20% 63V
2011▲	4822 124 40246	4.7µF 20% 63V
2012	5322 122 32491	1nF 20% 100V

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3000	4822 053 11829	82Ω 5% 2W
3001	4822 116 52226	560Ω 5% 0.5W
3002	4822 116 52226	560Ω 5% 0.5W
3003	4822 116 52224	470Ω 5% 0.5W
3004	4822 116 52224	470Ω 5% 0.5W
3005	4822 116 52224	470Ω 5% 0.5W
3013	4822 050 11002	1k 1% 0.4W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5003	4822 157 71117	38.9 MHz
5004	4822 157 71115	6.5 and 6.74 MHz
5004	4822 157 71116	5.5 and 5.74 MHz
5005	4822 157 71115	6.5 and 6.74 MHz
5005	4822 157 71116	5.5 and 5.74 MHz
5007	4822 157 71111	1.8µH 10%

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7000	4822 209 63784	TDA3857/V3
7001	4822 130 40941	BC558

2CS + I/O + amplification panel [H], [I], [J]

Various

▲	4822 265 20366	1 pin 2.35 mm
	4822 264 40207	3 pins male WTB
	4822 265 30913	3 pins male WTB for A20
	4822 264 40207	3 pins male WTB
	4822 265 30378	4 pins male WTB
	4822 265 30351	5 pins male WTB
	4822 265 40421	6 pins male WTB
	4822 265 40421	6 pins male WTB
	4822 290 40295	7 pins male WTB
	4822 265 40818	8 pins male WTB
	4822 492 70788	IC spring for amplifiers
	4822 267 41149	6 pole cinch block
	4822 460 11004	Ornamental plate cinch only
	4822 460 11005	Ornamental plate cinch + SVHS
1801	4822 242 80276	10,000 000 MHz

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2101	4822 121 41856	22nF 5% 250V
2105	5322 121 42465	68nF 5% 63V
2140	4822 124 21443	2.2µF 20% 50V
2141▲	4822 124 40246	4.7µF 20% 63V
2144▲	4822 124 40246	4.7µF 20% 63V
2147	5322 124 41431	22µF 20% 35V
2148	4822 121 41856	22nF 5% 250V
2149	4822 124 40248	10µF 20% 63V
2150	5322 121 42386	100nF 5% 63V
2151	4822 126 12643	22nF 20% 50V
2152	5322 121 42386	100nF 5% 63V
2153	4822 126 12643	22nF 20% 50V
2154	5322 121 42386	100nF 5% 63V
2155	5322 121 42386	100nF 5% 63V
2156	5322 124 41431	22µF 20% 35V
2157	4822 124 40248	10µF 20% 63V
2161	4822 121 43526	47nF 5% 250V
2162	4822 121 43526	47nF 5% 250V
2163	4822 121 43526	47nF 5% 250V
2164	4822 121 43526	47nF 5% 250V
2165	4822 121 43526	47nF 5% 250V
2166	4822 121 43526	47nF 5% 250V
2167	4822 124 41407	0.47µF 20% 63V
2182	4822 124 22263	220µF 20% 25V
2183	4822 122 33306	4.7nF 5% 50V
2184	5322 121 42661	330nF 5% 63V
2185	4822 121 42408	220nF 5% 63V
2189	4822 121 51379	82nF 5% 63V
2191	4822 121 51379	82nF 5% 63V
2192	4822 121 43823	470nF 5% 50V
2193	4822 121 42408	220nF 5% 63V
2200	4822 124 40255	100µF 20% 63V
2202	5322 121 42386	100nF 5% 63V
2205	4822 121 42408	220nF 5% 63V
2206	4822 124 80854	1µF 20% 50V
2209	4822 124 40248	10µF 20% 63V
2210	4822 121 51252	470nF 5% 63V
2211	4822 126 12519	330pF 10% 50V
2215	4822 121 51252	470nF 5% 63V
2216	4822 126 12519	330pF 10% 50V
2226	5322 122 32491	1nF 20% 100V
2235	4822 124 40248	10µF 20% 63V
2241	4822 124 40255	100µF 20% 63V
2250	4822 121 51252	470nF 5% 63V
2251	4822 121 51252	470nF 5% 63V
2255	4822 124 40248	10µF 20% 63V
2265	4822 124 40242	1µF 20% 63V
2267	4822 124 40242	1µF 20% 63V
2268	4822 124 40242	1µF 20% 63V
2269	4822 124 40242	1µF 20% 63V
2270	5322 122 32491	1nF 20% 100V
2271	5322 122 32491	1nF 20% 100V
2287	4822 124 40248	10µF 20% 63V
2311	4822 124 80854	1µF 20% 50V
2315	4822 124 40248	10µF 20% 63V
2801	4822 124 41576	2.2µF 20% 50V
2802	4822 124 41576	2.2µF 20% 50V
2803	5322 122 32356	820pF 10% 100V
2805	4822 121 51372	5.6nF 2% 250V
2807	5322 121 42386	100nF 5% 63V
2808	4822 124 40248	10µF 20% 63V
2809	4822 121 41857	10nF 5% 250V
2810	4822 124 41643	100µF 20% 16V
2811	5322 121 42386	100nF 5% 63V
2813	4822 124 41576	2.2µF 20% 50V
2814	4822 124 41576	2.2µF 20% 50V
2815	4822 124 41576	2.2µF 20% 50V
2818	4822 124 41576	2.2µF 20% 50V
2820	4822 121 41857	10nF 5% 250V
2821	4822 121 41857	10nF 5% 250V
2825	4822 124 40248	10µF 20% 63V
2828	4822 124 41566	3.3µF 20% 50V

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3101	4822 116 52175	100Ω 5% 0.5W
3105	4822 116 52263	2k7 5% 0.5W
3106	4822 116 52233	10k 5% 0.5W
3108▲	4822 116 52256	2k2 5% 0.5W
3110	4822 116 52243	1k5 5% 0.5W
3112	4822 116 52285	470k 5% 0.5W
3115▲	4822 116 52283	4k7 5% 0.5W
3116▲	4822 116 52283	4k7 5% 0.5W
3120	4822 116 52263	2k7 5% 0.5W
3121▲	4822 116 52256	2k2 5% 0.5W
3124	4822 116 52233	10k 5% 0.5W
3126	4822 116 52303	8k2 5% 0.5W
3130	4822 116 52233	10k 5% 0.5W
3135	4822 116 52243	1k5 5% 0.5W
3136	4822 116 52257	22k 5% 0.5W
3137	4822 116 52284	47k 5% 0.5W
3140▲	4822 116 52283	4k7 5% 0.5W
3141	4822 116 52296	6k8 5% 0.5W
3143	4822 116 52263	2k7 5% 0.5W
3147	4822 116 52263	2k7 5% 0.5W
3151▲	4822 116 52256	2k2 5% 0.5W
3152▲	4822 116 52256	2k2 5% 0.5W
3153	4822 116 52207	1k2 5% 0.5W
3154	4822 116 52207	1k2 5% 0.5W
3155	4822 116 52277	39k 5% 0.5W
3156	4822 050 11002	1k 1% 0.4W
3157	4822 116 52226	560Ω 5% 0.5W
3158	4822 116 52285	470k 5% 0.5W
3159	4822 116 52285	470k 5% 0.5W
3160▲	4822 116 52269	3k3 5% 0.5W
3161	4822 116 52257	22k 5% 0.5W
3162▲	4822 116 52269	3k3 5% 0.5W
3163	4822 116 52257	22k 5% 0.5W
3164	4822 050 11002	1k 1% 0.4W
3165▲	4822 116 52283	4k7 5% 0.5W
3167	4822 116 52257	22k 5% 0.5W
3168	4822 116 52257	22k 5% 0.5W
3169▲	4822 116 52193	39Ω 5% 0.5W
3170▲	4822 116 52283	4k7 5% 0.5W
3171▲	4822 116 52283	4k7 5% 0.5W
3172	4822 116 52292	560k 5% 0.5W
3173	4822 116 52292	560k 5% 0.5W
3174	4822 116 52265	270k 5% 0.5W
3175	4822 116 52249	1k8 5% 0.5W
3176	4822 116 52249	1k8 5% 0.5W
3177▲	4822 116 52269	3k3 5% 0.5W
3178	4822 050 11002	1k 1% 0.4W
3179	4822 116 52233	10k 5% 0.5W
3180	4822 116 52271	33k 5% 0.5W
3185	4822 050 26808	6Ω8 1% 0.6W
3186	4822 050 26808	6Ω8 1% 0.6W
3187	4822 050 26808	6Ω8 1% 0.6W
3189	4822 116 52304	82k 5% 0.5W
3190	4822 116 52276	3k9 5% 0.5W
3191	4822 116 52245	150k 5% 0.5W
3192	4822 116 52289	5k6 5% 0.5W
3193	4822 116 52289	5k6 5% 0.5W
3194▲	4822 116 52283	4k7 5% 0.5W
3195	4822 116 52213	180Ω 5% 0.5W
3199▲	4822 116 52269	3k3 5% 0.5W
3201	4822 116 52201	75Ω 5% 0.5W
3202	4822 050 11002	1k 1% 0.4W
3203	4822 116 52175	100Ω 5% 0.5W
3204	4822 050 11002	1k 1% 0.4W
3205	4822 050 11002	1k 1% 0.4W
3206	4822 116 52175	100Ω 5% 0.5W
3207	4822 116 52285	470k 5% 0.5W
3208	4822 116 52201	75Ω 5% 0.5W
3209▲	4822 116 52256	2k2 5% 0.5W
3210	4822 116 52201	75Ω 5% 0.5W
3211	4822 116 52258	220k 5% 0.5W
3212	4822 116 52175	100Ω 5% 0.5W
3213▲	4822 050 22702	2k7 1% 0.6W
3214	4822 116 52175	100Ω 5% 0.5W
3215	4822 116 52258	220k 5% 0.5W
3216▲	4822 050 22702	2k7 1% 0.6W
3220	4822 116 52284	47k 5% 0.5W
3229	4822 116 52234	100k 5% 0.5W
3231	4822 116 52234	100k 5% 0.5W
3233	4822 116 52233	10k 5% 0.5W
3235	4822 116 52233	10k 5% 0.5W
3236	4822 116 52234	100k 5% 0.5W
3238	4822 116 52234	100k 5% 0.5W
3239▲	4822 116 52283	4k7 5% 0.5W
3242	4822 116 52276	3k9 5% 0.5W
3244	4822 116 52233	10k 5% 0.5W
3245▲	4822 116 52283	4k7 5% 0.5W
3246	4822 116 52284	47k 5% 0.5W
3247	4822 116 52233	10k 5% 0.5W
3248	4822 050 11002	1k 1% 0.4W
3249	4822 116 52207	1k2 5% 0.5W
3250▲	4822 116 52283	4k7 5% 0.5W
3251	4822 116 52257	22k 5% 0.5W
3252	4822 116 52289	5k6 5% 0.5W
3253	4822 116 52207	1k2 5% 0.5W
3254	4822 116 52289	5k6 5% 0.5W
3255	4822 116 52207	1k2 5% 0.5W
3256	4822 116 52271	33k 5% 0.5W
3257	4822 116 52284	47k 5% 0.5W
3258	4822 116 52289	5k6 5% 0.5W
3260	4822 116 52211	150Ω 5% 0.5W
3262	4822 116 52271	33k 5% 0.5W
3263	4822 116 52284	47k 5% 0.5W
3264	4822 116 52289	5k6 5% 0.5W
3265	4822 116 52211	150Ω 5% 0.5W
3266▲	4822 116 52219	330Ω 5% 0.5W
3267▲	4822 116 52219	330Ω 5% 0.5W
3268▲	4822 050 21501	150Ω 1% 0.6W
3269▲	4822 050 21501	150Ω 1% 0.6W
3270	4822 116 52234	100k 5% 0.5W
3271▲	4822 116 52283	4k7 5% 0.5W
3273	4822 116 52257	22k 5% 0.5W
3275	4822 050 11002	1k 1% 0.4W
3276	4822 116 52226	560Ω 5% 0.5W
3277	4822 050 11002	1k 1% 0.4W
3278	4822 116 52226	560Ω 5% 0.5W
3283	4822 116 52296	6k8 5% 0.5W
3285	4822 116 52213	180Ω 5% 0.5W
3286▲	4822 116 52199	68Ω 5% 0.5W
3287▲	4822 116 52283	4k7 5% 0.5W
3289▲	4822 116 52283	4k7 5% 0.5W
3291▲	4822 116 52283	4k7 5% 0.5W
3294	4822 116 52291	56k 5% 0.5W
3295	4822 116 52271	33k 5% 0.5W
3296	4822 116 52291	56k 5% 0.5W
3297	4822 116 52271	33k 5% 0.5W
3300	4822 116 52238	12k 5% 0.5W
3311	4822 116 52233	10k 5% 0.5W
3315	4822 116 52175	100Ω 5% 0.5W
3316	4822 116 52226	560Ω 5% 0.5W
3320▲	4822 116 52283	4k7 5% 0.5W
3321	4822 116 52257	22k 5% 0.5W
3325	4822 116 52257	22k 5% 0.5W
3801	4822 100 11319	4k7 30% LIN 0.1W
3803	4822 116 52243	1k5 5% 0.5W
3804	4822 050 11002	1k 1% 0.4W
3804	4822 116 52243	1k5 5% 0.5W
3807	4822 116 52289	5k6 5% 0.5W
3808▲	4822 052 10478	4Ω7 5% 0.33W
3810	4822 116 52175	100Ω 5% 0.5W
3811	4822 116 52175	100Ω 5% 0.5W
3820	4822 116 52228	680Ω 5% 0.5W
3821	4822 050 11002	1k 1% 0.4W
3822	4822 116 52207	1k2 5% 0.5W
3823	4822 116 52291	56k 5% 0.5W
3825	4822 116 52271	33k 5% 0.5W
3826	4822 116 52291	56k 5% 0.5W
3827	4822 050 11002	1k 1% 0.4W
3828	4822 116 52291	56k 5% 0.5W
3829▲	4822 116 52256	2k2 5% 0.5W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5200	4822 157 50964	100µH
5201	4822 157 50964	100µH
5801	4822 157 70467	1500µH

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6101	4822 130 34488	BZX79-C11
6140	4822 130 34278	BZX79-C6V8
6190▲	4822 130 30621	1N4148
6191	4822 130 34174	BZX79-C4V7
6192▲	4822 130 30621	1N4148
6193	4822 130 34174	BZX79-C4V7
6194▲	4822 130 30621	1N4148
6195▲	4822 130 30621	1N4148
6196▲	4822 130 30621	1N4148
6197▲	4822 130 30621	1N4148
6198	4822 130 34167	BZX79-C6V2
6201	4822 130 34382	BZX79-C8V2
6202	4822 130 34382	BZX79-C8V2
6203	4822 130 34382	BZX79-C8V2
6204	4822 130 34382	BZX79-C8V2
6205	4822 130 34382	BZX79-C8V2
6206	4822 130 34382	BZX79-C8V2
6207	4822 130 34382	BZX79-C8V2
6208	4822 130 34382	BZX79-C8V2
6222	4822 130 34382	BZX79-C8V2
6275▲	4822 130 30621	1N4148
6276▲	4822 130 30621	1N4148
6295	4822 130 34174	BZX79-C4V7
6296▲	4822 130 30621	1N4148
6298▲	4822 130 30621	1N4148
6823▲	4822 130 30621	1N4148
6828	5322 130 31504	BZX79-C3V3

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7105	4822 130 40938	BC548
7106	4822 130 40941	BC558
7110	4822 130 40938	BC548
7115	4822 130 40941	BC558
7120	4822 130 40938	BC548
7125	4822 130 40941	BC558
7130	4822 130 40941	BC558
7135	4822 130 40938	BC548
7140	4822 130 40938	BC548
7150	4822 130 40938	BC548
7151	4822 130 40938	BC548
7152	4822 130 40938	BC548
7190	4822 209 32531	TDA7056A/N2
7191	4822 209 32531	TDA7056A/N2
7192	4822 209 32531	TDA7056A/N2
7193	4822 130 63427	BD534FI
7194	4822 130 40938	BC548
7195	4822 209 70672	LM358N
7205	4822 130 40938	BC548
7208	4822 130 40938	BC548
7219▲	4822 130 44197	BC558B
7240	5322 209 10576	HEF4053BP
7250	4822 130 40938	BC548
7260	4822 130 40938	BC548
7261	4822 130 40941	BC558
7265	4822 130 40938	BC548
7266	4822 130 40941	BC558
7270	5322 209 10576	HEF4053BP
7271	4822 130 40938	BC548
7275	4822 130 40938	BC548
7280	4822 130 40941	BC558
7285	4822 130 40938	BC548
7291	4822 130 40941	BC558
7315	4822 130 40938	BC548
7320	4822 130 40938	BC548
7325	4822 130 40941	BC558
7800	4822 209 32863	TDA9840/V1
7820	4822 130 40938	BC548
7825	4822 130 40941	BC558
7828	4822 130 40941	BC558
7829	4822 130 40938	BC548

NICAM panel [K]

Various

	4822 212 31348	NICAM I panel
	4822 212 31339	NICAM BG panel
	4822 212 31355	NICAM BG/79 panel
	4822 290 40295	7 pins male WTB
	4822 265 40818	8 pins male WTB
1018	4822 156 11158	Nyquist NICAM I
1018	4822 156 11157	Nyquist NICAM BG
1028	4822 242 81188	13.104MHz
1028	4822 242 81187	11.700MHz
1052	4822 242 81527	17.472MHz

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2007	4822 122 31746	1nF 2% 63V
2008	4822 122 31981	33nF +-0.5pF 50V
2011	4822 122 31981	33nF +-0.5pF 50V
2015	4822 122 32507	6.8pF 5% 50V
2018	4822 122 31746	1nF 2% 63V
2019	4822 122 33496	100nF 10% 63V
2020	4822 122 31797	22nF 10% 63V
2020▲	4822 122 32442	10nF 50V
2020▲	4822 122 32442	10nF 50V
2021	4822 122 33496	100nF 10% 63V
2022▲	4822 122 32442	10nF 50V
2024	4822 122 31768	180pF 2% 63V
2025	4822 122 31768	180pF 2% 63V
2028	5322 122 31842	330pF 2% 63V
2029	4822 122 32597	6.8nF 10% 63V
2030	4822 122 31746	1nF 2% 63V
2033	4822 122 31767	150pF 2% 63V
2034	4822 122 31767	150pF 2% 63V
2038	4822 122 31766	120pF 2% 63V
2040▲	4822 122 32442	10nF 50V
2041	5322 122 32838	82nF 10% 63V
2042▲	4822 122 32442	10nF 50V
2043▲	4822 124 40433	47µF 20% 25V
2044	4822 122 32891	68nF 10% 63V
2045	4822 121 42408	220nF 5% 63V
2046	4822 122 33496	100nF 10% 63V
2049	4822 122 31746	1nF 2% 63V
2050	4822 122 31746	1nF 2% 63V
2052	4822 122 31767	150pF 2% 63V
2055▲	4822 124 40433	47µF 20% 25V
2057	4822 122 32541	27nF 10% 63V
2057	4822 122 33608	39nF 10% 63V
2058	5322 122 31648	12nF 10% 50V
2058	4822 122 31759	18nF 10%
2060	4822 122 33498	2.7nF 10% 63V
2061	4822 122 32999	2.2nF 5%
2061	4822 122 33498	2.7nF 10% 63V
2062	4822 122 31773	560pF 2% 63V
2064	4822 122 31797	22nF 10% 63V
2065	4822 121 51319	1µF 10% 63V
2068	4822 122 32541	27nF 10% 63V
2068	4822 122 33608	39nF 10% 63V
2069	5322 122 31648	12nF 10% 50V
2069	4822 122 31759	18nF 10%
2070	4822 122 32999	2.2nF 5%
2070	4822 122 33498	2.7nF 10% 63V
2071	4822 122 33498	2.7nF 10% 63V
2072	4822 122 31773	560pF 2% 63V
2075	4822 122 31797	22nF 10% 63V
2076	4822 121 51319	1µF 10% 63V
2077	4822 124 40248	10µF 20% 63V
2078	4822 124 40248	10µF 20% 63V
2080	4822 124 40248	10µF 20% 63V
2092	4822 122 33496	100nF 10% 63V
2093	4822 124 40198	470µF 20% 16V
2096	4822 122 33496	100nF 10% 63V
2097▲	4822 124 41525	100µF 20% 25V

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3006	4822 116 52233	10k 5% 0.5W
3007	4822 051 10271	270Ω 2% 0.25W
3008	4822 051 10432	4k3 2% 0.25W
3009	4822 051 10271	270Ω 2% 0.25W
3011	4822 051 10829	82Ω 2% 0.25W
3012	4822 116 52233	10k 5% 0.5W
3013	4822 051 10102	1k 2% 0.25W
3015	4822 051 10561	560Ω 2% 0.25W
3018	4822 116 52249	1k8 5% 0.5W
3020	4822 051 10182	1k8 2% 0.25W
3024	4822 051 10332	3k3 2% 0.25W
3025	4822 051 10332	3k3 2% 0.25W
3028	4822 051 10104	100k 2% 0.25W
3029	4822 051 10823	82k 2% 0.25W
3030	4822 051 10159	15Ω 2% 0.25W
3033	4822 051 10223	22k 2% 0.25W
3034	4822 051 10223	22k 2% 0.25W
3035	4822 116 52276	3k9 5% 0.5W
3040	4822 116 52175	100Ω 5% 0.5W
3041	4822 116 52175	100Ω 5% 0.5W
3042	4822 051 10223	22k 2% 0.25W
3043▲	4822 051 10103	10k 2% 0.25W
3044▲	4822 051 10103	10k 2% 0.25W
3045	4822 051 10824	820k 2% 0.25W
3047	4822 051 10273	27k 2% 0.25W
3050	4822 116 52271	33k 5% 0.5W
3051▲	4822 051 10103	10k 2% 0.25W
3052	4822 051 10104	100k 2% 0.25W
3053	4822 116 52234	100k 5% 0.5W
3054	4822 051 10105	1M 5% 0.25W
3055	4822 051 10102	1k 2% 0.25W
3057	4822 051 10152	1k5 2% 0.25W
3057	4822 051 10102	1k 2% 0.25W
3058	4822 051 10822	8k2 2% 0.25W
3058	4822 051 10153	15k 2% 0.25W
3058▲	4822 051 10103	10k 2% 0.25W
3059▲	4822 116 52283	4k7 5% 0.5W
3060▲	4822 051 10472	4k7 2% 0.25W
3061	4822 051 10153	15k 2% 0.25W
3062	4822 051 10153	15k 2% 0.25W
3061	4822 051 10123	12k 2% 0.25W
3062	4822 051 10123	12k 2% 0.25W
3067▲	4822 051 10472	4k7 2% 0.25W
3067	4822 051 10562	5k6 2% 0.25W
3068	4822 051 10152	1k5 2% 0.25W
3068	4822 051 10102	1k 2% 0.25W
3069	4822 051 10822	8k2 2% 0.25W
3069	4822 051 10153	15k 2% 0.25W
3069▲	4822 051 10103	10k 2% 0.25W
3070▲	4822 116 52283	4k7 5% 0.5W
3071▲	4822 051 10472	4k7 2% 0.25W
3072	4822 116 52233	10k 5% 0.5W
3073▲	4822 051 10103	10k 2% 0.25W
3074	4822 051 10104	100k 2% 0.25W
3075	4822 116 52234	100k 5% 0.5W
3076	4822 116 52234	100k 5% 0.5W
3077	4822 116 52234	100k 5% 0.5W
3078	4822 051 10104	100k 2% 0.25W
3080	4822 051 10511	510Ω 2% 0.25W
3081	4822 116 52304	82k 5% 0.5W
3082	4822 116 52233	10k 5% 0.5W
3083▲	4822 051 10103	10k 2% 0.25W
3084	4822 116 52284	47k 5% 0.5W
3085▲	4822 051 10103	10k 2% 0.25W
3086▲	4822 051 10472	4k7 2% 0.25W
3092	4822 116 52222	390Ω 5% 0.5W
3093	4822 051 10479	47Ω 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5001	4822 157 51157	3.3µH
5020	4822 157 51157	3.3µH
5024	4822 157 50975	1 mH
5025	4822 157 50975	1 mH
5042	4822 157 51157	3.3µH
5045	4822 157 51157	3.3µH
5050	4822 157 51157	3.3µH
5063	4822 157 51157	3.3µH
5092	4822 157 51157	3.3µH

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6028	5322 130 34953	BB405B
6043	4822 130 80446	LL4148
6045	4822 130 80446	LL4148

6049	5322 130 31684	BB809
6080	4822 130 80446	LL4148
6081	4822 130 80446	LL4148
6082	4822 130 80446	LL4148
6083	4822 130 80446	LL4148
6096	4822 130 80954	LLZ-C5V6

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7007	5322 130 42136	BC848C
7013	5322 130 42136	BC848C
7015	4822 130 60514	BC859B
7025	4822 209 30909	TDA8732/C1
7040	5322 130 42136	BC848C
7045▲	4822 209 30914	SAA7280P/M3
7050	5322 130 42136	BC848C
7055	4822 209 73236	TDA1543/N2
7060▲	4822 209 83163	LM833N
7070▲	4822 209 83163	LM833N
7075	5322 209 10576	HEF4053BP
7080	4822 130 42513	BC858C
7081	5322 130 42136	BC848C
7093	4822 130 63558	BD533

TXT interface panel [M]

Various

	4822 212 31351	TXT interface panel
	4822 264 40207	3 pins male WTB
	4822 265 30378	4 pins male WTB
	4822 267 50591	6 pins male BTB (AU)
	4822 264 50148	8 pins male BTB (AU)

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2900	4822 124 41585	2.2µF 20% 50V

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3900	4822 116 52244	15k 5% 0.5W
3901▲	4822 116 52283	4k7 5% 0.5W
3902	4822 116 52207	1k2 5% 0.5W
3903	4822 116 52229	750Ω 5% 0.5W
3904	4822 116 52231	820Ω 5% 0.5W
3905	4822 116 52207	1k2 5% 0.5W
3906	4822 117 10826	22Ω resonator

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6900▲	4822 130 30621	1N4148
6901▲	4822 130 30621	1N4148
6905	4822 130 34382	BZX79-C8V2

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7900	4822 130 40938	BC548
7901	4822 130 40941	BC558

TXT panel [N]

Various

	4822 212 31349	ECCT TXT FLOF ANZ
	4822 212 31358	ECCT TXT EAST EU ANZ
▲	4822 265 40469	6 pins female side BTB (AU)
	4822 265 40471	8 pins female side BTB (AU)
1801	4822 242 73552	13,875 000 MHz
1802	4822 242 71508	6.00 MHz

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2793	4822 122 32542	47nF 10% 63V
2794	4822 122 31769	18pF 2% 63V
2795	4822 122 31769	18pF 2% 63V
2796	4822 122 31769	18pF 2% 63V
2797	4822 122 32083	8.2pF 5% 50V
2798	4822 122 33496	100nF 10% 63V
2800	4822 124 41584	100µF 20% 10V
2801▲	4822 122 32442	10nF 50V
2802	4822 122 31972	39pF 2% 63V
2803	4822 122 31972	39pF 2% 63V
2804	4822 122 31766	120pF 2% 63V
2805	4822 122 31766	120pF 2% 63V
2810	4822 122 33496	100nF 10% 63V
2811	4822 122 33496	100nF 10% 63V
2812	4822 122 33496	100nF 10% 63V
2813▲	4822 122 32442	10nF 50V
2814	4822 122 31773	560pF 2% 63V
2815	4822 122 33496	100nF 10% 63V
2816	4822 122 31825	27pF 2% 63V
2817	4822 122 32504	15pF 2% 63V
2818	5322 122 31647	1nF 10% 63V
2819	4822 122 31727	470pF 2% 63V
2820	4822 122 31797	22nF 10% 63V
2821	4822 122 32142	270pF 2% 63V
2822	4822 122 31765	100pF 2% 63V
2823	4822 122 31965	220pF 2% 63V
2824	4822 122 32891	68nF 10% 63V
2825▲	4822 124 41525	100µF 20% 25V
2826	4822 122 32504	15pF 2% 63V
2827	4822 122 32542	47nF 10% 63V
2828	4822 122 32542	47nF 10% 63V
2829▲	4822 124 40433	47µF 20% 25V
2830	4822 122 32542	47nF 10% 63V
2833	4822 124 41576	2.2µF 20% 50V
2845	4822 124 41584	100µF 20% 10V
2846▲	4822 124 40196	220µF 20% 16V
2849	4822 124 21212	15µF 20% 40V

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3795	4822 051 10392	3k9 2% 0.25W
3796	4822 051 51201	120Ω 1% 0.125W
3797	4822 116 52176	10Ω 5% 0.5W
3798	4822 051 51201	120Ω 1% 0.125W
3800▲	4822 051 10103	10k 2% 0.25W
3801	4822 051 10105	1M 5% 0.25W
3802	4822 051 10101	100Ω 2% 0.25W
3803	4822 051 10101	100Ω 2% 0.25W
3804	4822 051 10101	100Ω 2% 0.25W
3805	4822 051 10122	1k2 2% 0.25W
3807	4822 051 10622	6k2 2% 0.25W
3808▲	4822 051 10103	10k 2% 0.25W
3809	4822 051 10132	1k3 2% 0.25W
3810	4822 051 10333	33k 2% 0.25W
3811	4822 051 10223	22k 2% 0.25W
3812	4822 051 10332	3k3 2% 0.25W
3813	4822 051 10102	1k 2% 0.25W
3814	4822 050 11002	1k 1% 0.4W
3815	4822 051 10152	1k5 2% 0.25W
3816	4822 051 10683	68k 2% 0.25W
3817	4822 051 10122	1k2 2% 0.25W
3818	4822 051 10122	1k2 2% 0.25W
3819	4822 051 10122	1k2 2% 0.25W
3820	4822 051 10122	1k2 2% 0.25W
3821	4822 051 10122	1k2 2% 0.25W
3822	4822 051 10122	1k2 2% 0.25W
3823	4822 051 10122	1k2 2% 0.25W
3824	4822 051 10332	3k3 2% 0.25W
3825	4822 051 10332	3k3 2% 0.25W
3826▲	4822 052 11108	1Ω 5% 0.5W
3827	4822 051 10332	3k3 2% 0.25W
3828	4822 051 10829	82Ω 2% 0.25W
3839	4822 051 10122	1k2 2% 0.25W
3840	4822 051 10122	1k2 2% 0.25W
3841	4822 051 10122	1k2 2% 0.25W
3842	4822 051 10122	1k2 2% 0.25W
3843	4822 051 10122	1k2 2% 0.25W
3845▲	4822 052 10689	68Ω 5% 0.33W
3846▲	4822 052 10689	68Ω 5% 0.33W
3847	4822 051 10829	82Ω 2% 0.25W
3848	4822 051 10181	180Ω 2% 0.25W
3849	4822 051 10102	1k 2% 0.25W
3850	4822 051 20222	2k2 5% 0.1W
3852	4822 051 20222	2k2 5% 0.1W
3999	4822 051 10182	1k8 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5800	4822 156 20966	47 µH
5801	4822 157 52849	COIL
5803	4822 157 52825	COIL 60 µH
5814	4822 157 53608	10µH
5816	4822 157 52224	15µH
5847	4822 157 51157	3.3µH

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6809	4822 130 80446	LL4148
6810	4822 130 80446	LL4148
6811	4822 130 80446	LL4148
6812	4822 130 80446	LL4148
6813	4822 130 81223	LLZ-C2V4
6814	4822 130 80446	LL4148
6847	4822 130 42489	BYD33G
6848	4822 130 80905	LLZ-F5V1

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7800	4822 209 33034	PCF84C81AP/098/F2
7800	4822 209 30281	PCF84C81A/097
7801	4822 130 61207	BC848
7802	4822 130 61207	BC848
7803▲	5322 130 41982	BC848B
7810	4822 209 72681	MSM5165AL-12RS
7811▲	5322 130 41982	BC848B
7812	5322 130 60159	BC846B
7820	4822 209 30556	SAA5243P/E/M3/H
7820	4822 209 63974	SAA5243P/H
7830	4822 209 32201	SAA5231/V8
7846	4822 130 63558	BD533
7849	5322 130 42012	BC858

Colour television

Service
Service
Service

Anubis-S

BB 94.01

Service Information

1. Exit of the Service Default Mode:

In service manual Anubis S BB 4822 727 20262 in chapter 8 paragraph 3.3 "Exit of the Service Default Mode" the text should be adapted as follows:
For both software number A and 12 via standby (so not via mains switch off)

2. Software number 12

In service manual Anubis S BB 4822 727 20262 in chapter 8 software number 12 for sets equipped with a PLL tuning system (e.g. for -/71/97) is not published.

* **Parts involved for PLL tuning:**

1000	4822 210 10561	PLL tuner UV936E/F
1015	4822 242 73792	SAW filter OFWM1963M
3600	4822 116 90878	8k2 X 10
3601	4822 116 90879	8k2 X 8
3602	4822 116 90881	8k2 X 6
7225	4822 209 33479	TDA8361E/N3
7600	4822 209 33413	P87C055BB-PNB software number 12 (available approx. week 9420)

* **Functioning of the Service Default Mode and Service Mode of software number 12**
The functioning of the Service Default Mode and the Service Mode is exactly the same as for software number A (as described in the service manual 4822 727 20262 in paragraph 4.2) except for the option settings and the hotel mode.

* **Option settings software number 12**
- Option setting table for software number 12; see table 8.4
- Checksum; Add the 2 data values at the addresses 252 and 253. If necessary subtract 256 to get a checksum data under 256. This checksum data should be keyed in at the checksum address 254. If the checksum is not correct the set will use default setting.
- Changing the options in the service mode of software number 12 has to be done with the "CURSOR" and "STORE" buttons and **not** with the "CONTROL -/+", "CHANNEL -/+" and "0-9" buttons:

* CURSOR LEFT:	Select the ADDRESS area
* CURSOR RIGHT:	Select the DATA area
* CURSOR UP:	Increment of the value in the selected area
* CURSOR DOWN:	Decrement of the value in the selected area
* STORE:	After every ADR and/or DATA change press the "STORE" button to store the changed values.

Only after switching off and on again the set with the mains switch the changed values will be used !!!

- Both software number A and 12 automatically unprotect the EEPROM at entering the Service Mode and protect the EEPROM again at exiting the Service Mode.
This is done via an automatic change of the data at address 255.
For this reason the data at this address 255 should **not** be adapted in the Service Mode.

* **Hotel mode for software number 12**
Hotel mode for software number 12 is activated and deactivated in the same way as for software number A.
However software number 12 has only 1 hotel mode with the following features:
- Entering the INSTALL menu is not possible
- Store PP is not possible
- Maximum volume level is limited to the value present at the moment the hotel mode was activated.

3. Spare parts list:

In service manual Anubis S BB 4822 727 20262 in chapter 10 the spare parts list for the Multisound panel, the BTSC panel and the turkish TXT decoder are not published. Also this information is published in this service information.
For -/62 Turkey the following codenumbers are also valid:

*	4822 267 51058	Scart plug (for -/62)
*	4822 454 12936	Ornamental plate for scart *(for -/62)*

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PHILIPS

OPTION SETTING TABLE FOR SOFTWARE NUMBER 12

Address	Option A	Value	Option B	Value
252	BTSC panel not present	0	BTSC panel present	128
	Mono set	0	AV stereo playback	64
	Not used			0
	AV selection not allowed	0	AV selection allowed	16
	No trinorma set	0	Trinorma set	8
	Not used			0
	Not used			0
	Not used			0
253	No subwoofer present	0	Subwoofer present	128
	Keys local control	0	Keys local control	64
	Protection bit can not be saved in EEPROM	0	Protection bit is saved in EEPROM (so after protection occurred, the set remains in protection until entering the Service Mode)	32
	Spatial feature is not present	0	Spatial feature is present	16
	Multi voltage is not present	0	Multi voltage is present	8
	Sharpness feature is not present	0	Sharpness feature is present	4
	Hotel mode not allowed	0	Hotel mode allowed	2
	HUE control disabled	0	HUE control enabled, for NTSC only sets	1
254	Checksum Add data on address 252 and 253 and then (if necessary) subtract 256 until the data has a value under 256. If checksum is not OK the set will use default setting.			

Table 8.4

Multi sound panel [D]

Various

	4822 212 31346	Multisound panel
	4822 265 20366	1 pin header 2.35 mm
	4822 265 40421	6 pins male WTB
	4822 165 30378	4 pins male WTB
	4822 266 30276	4 pins female BTB (AU)
	4822 265 40471	8 pins female BTB (AU)
1101	4822 242 72547	5.5MHz
1102	4822 242 71713	6.0MHz
1103	4822 242 72057	6.5MHz
1104	4822 242 71725	4.5MHz

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2105	4822 122 33293	100pF 5% 50V
2106	5322 122 32491	1nF 20% 100V
2107	4822 124 40242	1μF 20% 63V
2108	4822 121 43714	820nF 5% 50V
2108	4822 121 51436	820nF 10% 63V
2111	4822 121 51231	820pF 1% 400V
2111	4822 126 13173	820pF 5% DC 50V
2112	4822 126 12788	33pF 5% 50V
2114	5322 122 32491	1nF 20% 100V
2115	5322 122 32491	1nF 20% 100V
2116	5322 122 32491	1nF 20% 100V
2117	5322 122 32491	1nF 20% 100V
2125	4822 126 12643	22nF 20% 50V
2132	4822 124 40248	10μF 20% 63V
2133	4822 126 12643	22nF 20% 50V
2140	5322 122 32311	470pF 10% 100V
2154	4822 126 12643	22nF 20% 50V
2160	5322 122 32491	1nF 20% 100V

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3101	4822 116 52269	3k3 5% 0.5W
3102	4822 116 52289	5k6 5% 0.5W
3103	4822 116 52289	5k6 5% 0.5W
3104	4822 116 52289	5k6 5% 0.5W
3105	4822 116 52289	5k6 5% 0.5W
3106	4822 116 52244	15k 5% 0.5W
3107	4822 116 52226	560Ω 5% 0.5W
3108	4822 116 52225	510Ω 5% 0.5W
3109	4822 116 52245	150k 5% 0.5W
3110	4822 116 52245	150k 5% 0.5W
3111	4822 116 52273	3k6 5% 0.5W
3112	4822 052 10129	12Ω 5% 0.33W
3114	4822 116 52233	10k 5% 0.5W
3115	4822 116 52256	2k2 5% 0.5W
3116	4822 116 52283	4k7 5% 0.5W
3117	4822 116 52226	560Ω 5% 0.5W
3118	4822 116 52292	560k 5% 0.5W
3120	4822 116 52269	3k3 5% 0.5W
3150	4822 116 52215	220Ω 5% 0.5W
3151	4822 116 52224	470Ω 5% 0.5W
3152	4822 116 52219	330Ω 5% 0.5W
3152	4822 116 52224	470Ω 5% 0.5W
3153	4822 116 52219	330Ω 5% 0.5W
3154	4822 116 52226	560Ω 5% 0.5W
3155	4822 116 52291	56k 5% 0.5W
3156	4822 116 52244	15k 5% 0.5W
3160	4822 116 52245	150k 5% 0.5W

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5105	4822 157 71039	120μH
5106	4822 157 71113	10μH 10%

▶|

6101	4822 130 30621	1N4148
6102	4822 130 30621	1N4148
6103	4822 130 30621	1N4148
6104	4822 130 30621	1N4148
6106	5322 130 80617	BAT81
6107	5322 130 80617	BAT81
6124	4822 130 34233	BZX79-C5V1
6132	4822 130 34379	BZX79-C27
6133	4822 130 34379	BZX79-C27

▭ ⊗

7111	4822 130 40937	BC548B
7112	4822 130 40938	BC548
7113	4822 130 40938	BC548
7114	4822 130 40941	BC558
7115	4822 130 40937	BC548B
7120	4822 130 40938	BC548
7132	5322 209 10421	HEF4094BP
7133	4822 130 44196	BC548C

BTSC panel [L]

Various

	4822 212 31454	BTSC panel
	4822 290 40295	7 pins male WTB
	4822 265 40818	8 pins male WTB

⊣⊢

2801	4822 124 40248	10μF 20% 63V
2802	4822 121 51252	470nF 5% 63V
2803	5322 121 42386	100nF 5% 63V
2804	4822 124 40248	10μF 20% 63V
2805	4822 121 42408	220nF 5% 63V
2806	4822 124 40242	1μF 20% 63V
2807	4822 124 40242	1μF 20% 63V
2808	4822 121 43526	47nF 5% 250V
2809	4822 124 40248	10μF 20% 63V
2810	4822 124 40248	10μF 20% 63V
2811	4822 124 40246	4.7μF 20% 63V
2812	4822 124 40246	4.7μF 20% 63V
2815	4822 121 42408	220nF 5% 63V
2816	4822 124 40242	1μF 20% 63V
2817	4822 124 40248	10μF 20% 63V
2818	4822 124 41643	100μF 20% 16V
2819	4822 121 41856	22nF 5% 250V
2820	4822 124 41643	100μF 20% 16V

−▭−

3801	4822 116 52269	3k3 5% 0.5W
3803	4822 053 12569	56Ω 5% 3W
3804	4822 100 11213	22k 30% lin 0.1W
3805	4822 050 21104	110k 1% 0.6W
3806	4822 100 11392	47k 30% lin 0.1W
3807	4822 100 11213	22k 30% lin 0.1W
3808	4822 100 11213	22k 30% lin 0.1W
3809	4822 100 11213	22k 30% lin 0.1W
3810	4822 100 11213	22k 30% lin 0.1W
3812	4822 050 21802	1k8 1% 0.6W
3813	4822 050 21301	130Ω 1% 0.6W
3814	4822 116 52256	2k2 5% 0.5W
3815	4822 116 52226	560Ω 5% 0.5W
3818	4822 050 11002	1k 1% 0.4W
3824	4822 116 52233	10k 5% 0.5W
3825	4822 116 52233	10k 5% 0.5W
3826	4822 050 28202	8k2 1% 0.6W
3827	4822 050 21601	160Ω 1% 0.6W
3828	4822 100 20166	10k 30% lin 0.1W
3829	4822 116 52249	1k8 5% 0.5W
3830	4822 116 52257	22k 5% 0.5W
3876	4822 116 52175	100Ω 5% 0.5W
3877	4822 116 52175	100Ω 5% 0.5W

▶|

6801	4822 130 34233	BZX79-C5V1
6802	4822 130 30621	1N4148
6803	4822 130 30621	1N4148
6804	4822 130 31981	BZX79-C3V9

▭ ⊗

7801	4822 209 30946	TDA3833/V3
7814	4822 130 40948	BC548A

TXT panel [N]

Various

	4822 212 31455	ECCT TXT panel Turkey

▭ ⊗

7800	4822 209 30279	PCF8481AP/096/ F2 for /62
7820	4822 209 63975	SAA5243P/T for /62

Colour television

Service
Service
Service

Anubis S
BB&CC

94.02

Service Information

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Incredible stereo

In this service information the Incredible stereo panel and all other related modifications are published (the incredible stereo panel is the same for both Anubis S BB and CC).

In the Anubis S BB (english 4822 727 20262, spanish 4822 727 20281; 21-25" Anubis S stereo) the incredible stereo feature will be added and indicated with the typenumbers -/xxT (for the future 29" this will be -/xxR). For the Anubis S BB the slightly adapted Multisound panel (diagram D) and the slightly adapted 2CS + I/O + Amplification panel (diagram H and a part of diagram J) are published in this service information.

In the Anubis S CC (english 4822 727 20288, spanish 4822 727 20289; 14-20-21" Anubis S with Interface + Amplifier panel) this incredible stereo feature can also be introduced in future. For the Anubis S CC the Interfacing + Amplification panel (diagram I) and the Multisound panel (diagram D) are already prepared for incredible stereo, so they are not published in this service information.

1. Software number A+

Anubis S BB and CC sets with production code SV03 are foreseen with a μC with software number "A+" (sets with production code SV02 and thus with a μC with software number "A" will remain in production in parallel).
Microprocessor IC7600 (diagram C) software number "A+" version 0.9 (ANUBIS-SAPHV 0.9 in the Service Mode and CTV110SAPHV 0.9 printed on the μC):
PCA84C844P/163; 4822 209 33773
Software number "A+" has the following extra features in comparison with software number A:

* Incredible stereo
  For selection of the incredible stereo feature, first press the I-II button to select stereo or NICAM and then press the SPATIAL button to switch on/off incredible stereo.
* TDSD2 NICAM via SAA7282:
  This software can handle both the present SAA7280 NICAM (single system) decoder and the future SAA7282 (both single system NICAM and the so called BINICAM systems BG and I). At the introduction of this SAA7282 this will be published via a separate service information.
* New hotel mode:
  Extra features of hotel mode 1 of software number "A+" in comparison with hotel mode 1 of software number "A":
  - Switching "on" the set from stand-by using the PROGRAM +/- buttons will select the last viewed program number.
  - When the preset maximum volume level for hotel mode is reached, the volume menu OSD will not increase any further.

  Extra feature of hotel mode 2 of software number "A+" in comparison with hotel mode 2 of software number "A":
  - At program numbers 30..49 in "radio mode" via OSD the word "AUDIO" will be displayed.
* Checksum:
  Via one of the options at address 245 (with values 0 and 4) it is determined whether the checksum area should be calculated over the addresses 245 up to and included 253 or over the addresses 239 up to and included 253 (the protected area in the EEPROM will be adapted accordingly, so either 245..253 or 239..253).
  Checksum calculation is done in the same way as for software number "A" (see service manual Anubis S BB chapter 8).

2. Software number 12

Anubis S BB and CC sets with production code SV03 and higher with software number 12 are foreseen with a μC with the incredible stereo feature.

* For Anubis S BB IC7600 (diagram C) software number 12 version 2.8 (ANUBIS-S12HV 2.8):
  P83C055-CV6108NB; 4822 209 33622
* For Anubis S CC IC7600 (diagram C) software number 12 version 2.9 (ANUBIS-S12HV 2.9):
  (this software version has a demo mode with AV-IN only)
  P83C055-CV6118NB; 4822 209 52596

Selection of the incredible stereo feature can be done in 2 ways:

* Direct via the SPATIAL button on the remote (toggle function incredible stereo/spatial effect on and off.
* Indirect via the SOUND-MENU via control left/right.

3. Control and muting

* **Control for Anubis S BB**
  - Shift register (output expander) HEF4094
    For Anubis S BB an (extra) shift register IC7827 (HEF4094; diagram H) is applied only in case incredible stereo is used.
    The following shift register configuration are possible:
    * 1 shift register HEF4094 (IC7132) on the Multisound panel.
    * 1 shift register HEF4094 (IC7827) on the 2CS+I/O+Ampl panel.
    * 2 shift registers HEF4094 (IC7132 and IC7827) in cascade (note the configuration table address 244 for software number "A+"" and address 252 for software number "12").
      In case of 2 shift registers jumper 9144 is present and 9143 and CUT1 on the Multisound panel are not present (diagram D). As a result the Os' at pin 10 IC7827 (diagram H) shifts through the data (16 bits i.s.o. 8 bits as there are 2 shift registers in cascade) to SDA pin 2 of IC7132 via connector 5A8A (diagram J) to connector 3C8A and jumper 9144 (diagram D).
  - Incredible stereo control in Anubis S BB
    Switching on/off the incredible stereo feature is done via pin 6 IC7827 (HEF4094) on diagram H. Via connector A7A (diagram H) to connector A7 and 3A9 (diagram J) to 3I9 and the signal line "INC-SWITCH" on the incredible sound panel.
    This "INC-SWITCH" signal line selects via IC7400 (HEF4053) between L and R audio signals with and without incredible stereo effect (INC-SWITCH "high" is incredible stereo feature "on", if "low" then "off").
* **Control for Anubis S CC**
  - Shift register (output expander) HEF4094
    For Anubis S CC an (extra) shift register IC7290 (HEF4094; diagram I of the Anubis S CC service manual) is reserved.
    * 1 shift register HEF4094 (IC7132) on the Multisound panel.
    * 1 shift register HEF4094 (IC7920) on the Interfacing + Amplification panel.
    * 2 shift registers in cascade (combination of IC7132 and IC7290).
  - Incredible stereo control in Anubis S CC
    Provisions to switch on/off the incredible stereo panel by IC7290 on the Interfacing + Amplification panel (diagram I) are not yet foreseen.
* **Muting for Anubis S BB**
  a. For sets with incredible stereo, so IC7827 present (with and without multisound panel)
     In case of a set with incredible stereo IC7827 on the 2CS+I/O+Ampl panel is present (diagram H). Muting is done via pin 4 IC7827.
     * FM_MONO mute; In case the μC (via SOUND_ID or SAP_AVAIL or NICAM_AVAIL) knows that the Multisound or NICAM or BTSC decoder have not found a correct signal, pin 4 IC7827 becomes "low". TS7828 and so TS7829 conduct. Herewith the FM_MONO signal and the NICAM or BTSC signal will be muted.
     * AV_OUT mute; In case the AV-OUT cinches are present, AV-OUT muting also takes place via pin 4 IC7827. At muting pin 4 IC7827 is "low", FM_MONO will be muted and as a result AV_OUT will be muted (AV_OUT will not be muted by TS7830, A5A and A6A, as these components are not present for sets with IC7827).

  b. For sets without incredible stereo (IC7827 not present) + with multisound panel
     In case of a set without incredible stereo IC7827 is not mounted. Jumper 9143 and CUT1 on the Multisound panel are present, jumper 9144 is not present (diagram D).
     * FM_MONO mute; FM-MONO is not muted as C2823 is not present for a set without IC7827.
     * AV_OUT mute; Muting is done via the SOUND_ID signal from the Multisound panel (diagram D). Via jumper 9143, 3C8A (diagram D), 5A8A (diagram J), via Os' and jumper 9827 and 9828 (diagram H).
       In case the Multiound panel does not detect a correct sound system, the SOUND_ID will be "low" (diagram D). By then TS7828 is driven into conduction and so TS7829 and TS7830 are conducting. Connector A5A (diagram H) is connected to A5 (diagram I of the Anubis S BB service manual) which is directly connected to the L_MONITOR output cinch. Connector A6A (diagram H) is connected to A6 (diagram I) which is directly connected to the R_MONITOR output cinch. As a result in case of muting the L_MONITOR and R_MONITOR are shorted by TS7829 and TS7830.

  c. For sets without incredible stereo (IC7827 not present) + without multisound panel
     In this case muting of AV_OUT on the 2CS+I/O+Ampl panel is not needed as there is no "noise" coming from the Multisound panel.
* **Muting for Anubis S CC**
  For sets with Multisound panel (mono and stereo versions) muting is described in the service manual of Anubis S CC (diagram I page 13)

4. Incredible stereo/sound

For stereo in television sets in general the loudspeakers are too close to each other for a good stereo effect.
Some television sets make use of a spatial effect, which measures the difference between left and right and amplifies the stereo effect before giving the signals to the left and right speakers. Although it gives some improvement it is not the real widening of stereo as if the loudspeakers are more separated.
For the Anubis S BB the sound system has been extended with an "electronic" stereo widening system.
With aid of his two ears a listener can detect where the sound is coming from. If e.g. the loudspeakers are more separated, than the angle between the boxes and the listener will be different and with this the phase and amplitude of both left and right sound signals to both ears. Via mathematic calculations of the phase relations from boxes to ears, frequency depending phase and amplitude can be determined for influencing the stereo effect.
The implemented "electronic" stereo widening system of the Anubis S BB will give the listener an experience of this "Incredible Stereo" as if the loudspeakers are really separated in line with the original transmitted stereo recording.

Realisation in the Anubis S BB and CC

The left signal L-IN is fed to a low-pass passive filter by R3206, C2202 and R3207, R3208, C2203, R3210 and R3209. This filter influences the phase characteristic from 500Hz to 15kHz and gives an amplitude variation rolling off at 1kHz.
The right signal R-IN is fed to an active phase-shift filter (starting at 500Hz) by IC7200-4A, R3201, R3200, C2200 and R3202, C2201. This filter influences the frequency and amplitude characteristic.
The output of these 2 filters are added via input pins 9 and 10 of IC7200-4B. Finally IC7300-2A amplifies the signal to compensate the level. The adapted left signal is fed to the left amplifier.
Similar the right signal is adapted: passive R-IN low pass filter, active L-IN phase-shifting (IC7200-4C), mixing (IC7400-4D) and amplitude correction (IC7300-2B).
The "Incredible Stereo" signals or the standard signals can be selected. If "INC-SWITCH" is "high":, TS7001 will conduct and IC7400 (HEF4053) will select "Incredible stereo". If "INC-SWITCH" is "low", the standard signals are selected.
IC7200-4B-4D will get the DC bias (7V) at pin 10 and 3 from R3501 and R3502.

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Estéreo Increíble

En la presente información de servicio aparecen publicados el panel de estéreo increíble con todas sus modificaciones relacionadas (el panel de estéreo increíble para el Anubis S BB es el mismo que para el Anubis CC).

Al Anubis S BB (inglés 4822 727 20262, español 4822 8727 20281; 21-25" Anubis S estéreo) se añadirá la función de estéreo increíble y será indicada con los números de tipo -/xxT (para el futuro 29" el número será -/xxR). Para el Anubis S BB el ligeramente cambiado panel Multisound (esquema D) y el ligeramente cambiado 2CS +I/O + panel de amplificación (esquema H y parte del esquema J) están incluidos en la presente información de servicio.

En el Anubis S CC (inglés 4822 727 20288, español 4822 727 20289; 14-20-21" Anubis S con panel de Interfaz y de amplificación) se puede introducir esta función de estéreo increíble también en el futuro. Para el Anubis S CC el panel de interfaz y de amplificación (esquema I) y el panel de Multisound (esquema D) están preparados ya para estéreo increíble, por consiguiente, no aparecen publicados en la presente información de servicio.

1. **Número de software A+**
   Los aparatos Anubis S BB y CC con el código de producción SV03 están dotados de un µC con el número de software "A+" (aparatos con el código de producción SV02 y, por lo tanto, con un µC con el número de software "A" permanecerán en producción en paralelo).
   El microprocesador IC7600 (esquema C) con el número de software "A+", versión 0.9 (ANUBIS-SAPHV 0.9 en el Modo de Servicio y CTV110SAPHV 0.9 impreso en el µC):
   PCA84C844P/163; 4822 209 33773
   El número de software "A+" tiene las siguientes extra funciones que no tiene el número de software A:
   - Estéreo increíble
     Para seleccionar la función de estéreo increíble, pulse primero el botón I-II para seleccionar estéreo o NICAM y pulse el botón SPATIAL para activar/desactivar el estéreo increíble.
   - TDSD2 NICAM a través de SAA7282:
     Este software puede manejar el decodificador presente SAA7280 NICAM (sistema sencillo) y el decodificador futuro SAA7282 (tanto el sistema sencillo NICAM y los llamados sistemas BINICAM BG y I). Con la introducción de este SAA7282 se publicará una separada información de servicio.
   - Nuevo modo hotel;
     Extra funciones del modo hotel 1 del número de software "A+" y que no tiene el modo hotel 1 del número de software "A":
     - Cuando se enciende el aparato desde la posición de espera pulsando los botones PROGRAM +/-, aparecerá el último número de programa que se haya estado mirando.
     - Cuando se haya alcanzado el nivel máximo del volumen que se haya preajustado para el modo hotel, el OSD del menú del volumen no aumentará más.

     Una función extra del modo hotel 2 del número de software "A+" en comparación con el modo de hotel 2 del número de software "A":
     - Con los números de programa 30..49 en el "radio mode" a través de OSD se visualizará la palabra "AUDIO".
   - Suma de control:
     A través de una de las opciones en la dirección 245 (con los valores 0 y 4) se determina si se debe calcular la área de la suma de control sobre las direcciones 245 hasta 253, ambas inclusive o sobre las direcciones 239 hasta 253, ambas inclusive (la área protegida en la EEPROM será adaptada conformemente, por lo tanto, 245..253 o 239..253).
     El cálculo de la suma de control se realiza del mismo modo que para el número de software "A" (véase el manual de servicio Anubis S BB, capítulo 8).

2. **Número de software 12**
   Los aparatos Anubis S BB y CC con el código de producción SV03 y códigos siguientes con el número de software 12 están dotados de un µC con la función de estéreo increíble.
   - Para el Anubis S BB IV7600 (esquema C) número de software 12, versión 2.8 (ANUBIS-S12HV 2.8):
     P83C055-CV61081NB; 4822 209 33622
   - Para el Anubis S CC IC7600 (esquema C) número de software 12, versión 2.9 (ANUBIS-S12HV 2.9):
     (esta versión de software posee un modo demo con solamente AV-IN)
     P83C055-CV6118NB; 4822 209 52596

   La selección de la función estéreo increíble se puede hacer de dos maneras:
   - Directamente a través del botón SPATIAL en el mando a distancia (función basculante estéreo increíble/efecto espacial activado y desactivado.
   - Indirectamente a través del MENU DE SONIDO mediante el mando izquierdo y derecho.

3. **Control y supresión**
   - **Control para el Anubis S BB**
     - Registro de desplazamiento (expansor de salida) HEF4094:
       Para el Anubis S BB se ha aplicado solamente un registro de desfasamiento (extra) IC7827 (HEF4094; esquema H) cuando se usa estéreo increíble.
       Las siguientes configuraciones del registro de desplazamiento son posibles:
       - 1 registro de desplazamiento HEF4094 (IC7132) en el panel Multisound
       - 1 registro de desplazamiento HEF4094 (IC7827) en el 2CS+I/O+panel de amplificación.
       - 2 registros de desplazamiento HEF4094 (IC7132 e IC7827) en cascada (observe la tabla de configuración dirección 244 para el número de software "A+" y la dirección 252 para el número de software "12").
         En el caso 2 registros de desplazamiento, los saltadores 9144 y 9143 están presentes y CUT1 en el panel Multisound no está presente (esquema D). A consecuencia de ello el OS en la patilla 10 del IC7827 (esquema H) desplaza por los datos (16 bits o 8 bits si hay dos registros de desplazamiento en cascada) a SDA patilla 2 del IC7132 a través del conector 5A8A (esquema J) al conector 3C8A y saltador 9144 (esquema D)
     - Control de estéreo increíble en el Anubis S BB
       La función estéreo increíble se activa o se desactiva a través de la patilla 6 del IC7827 (HEF4094) en el esquema H. A través del conector A7A (esquema H) al conector A7 y 3A9 (esquema J) a 319 y la línea de señal "INC-SWITCH" en el panel de sonido increíble. Esta línea de señal "INC-SWITCH" selecciona, a través del IC7400 (HEF4053), entre señales acústicas L o R(izquierda o derecha) con y sin efecto de estéreo increíble (si el INC-SWITCH está en alta: "high", entonces la función de estéreo increíble esta activada, si está en baja: "low", entonces está desactivada.
   - **Control para Anubis S CC**
     - Registro de desplazamiento (expansor de salida) HEF4094:
       Para el Anubis S CC se ha aplicado un (extra) registro de desplazamiento IC7290 (HEF4094; esquema I del manual de servicio del Anubis S CC) está reservado
       - 1 registro de desplazamiento HEF4094 (IC7132) en el panel Multisound
       - 1 registro de desplazamiento HEF4094 (IC7920) en el panel de interfaz y de amplificación.
       - 2 registros de desplazamiento en cascada (una combinación de (IC7132 e IC7290).
     - Control de estéreo increíble en el Anubis S CC
       Aún no se han tomado provisiones para que el IC7290 pueda activar y desactivar el panel de estéreo increíble en el panel de interfaz y de amplificación (esquema I).
   - **Supresión para el Anubis S BB**
     a. Para aparatos con estéreo increíble, así que, el IC7827 está presente (con y sin el panel multisound)
        En caso de un aparato con estéreo increíble, el IC7827 está presente en el 2CS+I/O+panel de amplificación (esquema H). La supresión se efectúa a través de la patilla 4 IC7827.
        - Supresión FM-MONO; en el caso que el µC (a través de SOUND-ID o SAP-AVAIL o NICAM-AVAIL) detecta que el Multisound o el decodificador NICAM o BTSC no han encontrado una señal correcta, la patilla 4 del IC7827 se pone en "baja". El TS7828 y, en consecuencia, el TS7829 conducen. Debido a ello la señal FM-MONO y la señal NICAM o BTSC serán suprimidas.
        - Supresión AV-OUT; Si los cinches AV-OUT están presentes, la supresión AV-OUT tiene también lugar a través de la patilla 4 IC7827. Al suprimir la patilla 4 del IC7827 está en "baja", FM-MONO será suprimido y a consecuencia de ello también AV-OUT será suprimido (AV-OUT no será suprimido por TS7830, A5A y A6A, ya que estos componentes no están presentes para aparatos con IC7827.

     b. Para aparatos con estéreo increíble (IC7827 no presente) + con panel multisound
        En los aparatos sin estéreo increíble no está montado el IC7827. El saltador 9143 y CUT1 en el panel Multisound están presentes, el saltador 9144 no está presente (esquema D).
        - Supresión FM-MONO; FM-MONO no se suprime ya que C2823 no está presente en los aparatos que no tienen IC7827.
        - Supresión AV OUT; La supresión se efectúa a través de la señal SOUND-ID del panel Multisound (esquema D), a través del saltador 9143, 3C8A (esquema D), 5A8A (esquema J), a través de Os y los saltadores 9827 y 9828 (esquema H).
          Cuando el panel Multisound no detecta un sistema de sonido correcto, el SOUND-ID estará en "baja" (esquema D). TS7823 habrá entrado en conducción y, por lo tanto, TS7829 y TS7830 conducen. El conector A5A (esquema H) está conectado con A5 (esquema I del manual de servicio del Anubis S BB) que está conectado directamente con el cinch de la salida L-MONITOR. El conector A6A (esquema H) está conectado con A6 (esquema I) el cual está conectado directamente con el cinch de salida R-MONITOR. Como consecuencia de ello, el L-MONITOR y el R-MONITOR están cortados por TS7829 y TS7830.

     c. Para aparatos sin estéreo increíble (IC7827 no presente) + sin panel multisound
        En este caso la supresión del AV-OUT en 2CS+I/O+ panel de amplificación no está presente ya que no saleningún "ruido" del panel Multisound.
   - **Supresión para el Anubis S CC**
     Para aparatos con panel Multisound (versiones mono y estéreo) la supresión está descrita en el manual de servicio del Anubis S CC (esquema I, página 13).

4. **Sonido/estéreo increíble**
   Para poder escuchar bien el efecto estéreo de los aparatos de televisión, la distancia entre las altavoces suele estar demasiado corta.
   Algunos aparatos de televisión hacen uso de un efecto espacial, que mide la diferencia entre el canal izquierdo y derecho y amplifica el efecto estéreo antes de transmitir las señales a los altavoces izquierdo y derecho. Aunque es una mejora, sin embargo no es realmente la ampliación de estéreo como si las altavoces estuvieran más separadas.
   Para el Anubis S BB el excelente sistema acústico ha sido ampliado con un sistema "electrónico" de amplificación del estéreo.
   Mediante sus dos oídos el oyente puede detectar de donde proviene el sonido. Si, por ejemplo, la distancia entre los dos altavoces fuera más grande, el ángulo entre las altavoces y el oyente sería diferente y con ello también las fases y la amplitud de las señales acústicas izquierdas y derechas a ambas oídos. Haciendo cálculos aritméticos de las relaciones de fases de los altavoces a los oídos, es posible determinar la fase y amplitud que depende de la frecuencia para influenciar en el efecto estereofónico.
   El sistema "electrónico" de amplificación del estéreo introducido en el Anubis S BB da al oyente un experiencia de este "Estéreo Increíble" como si los altavoces estuvieran realmente separados de acuerdo con la grabación estereofónica originalmente transmitida.
   Realización en el Anubis S BB y CC
   La señal izquierda L-IN es alimentada a un filtro pasivo de paso bajo por R3206, C2202 y R3207, R3208, C2203, R3210 y R3209. Este filtro influye en la característica de fase de 500Hz a 15kHz, dando una variación de amplitud cortando a 1kHz.
   La señal derecha R-IN es alimentada a un filtro activo de desfasamiento (comenzando a 500Hz), por el IC 7200-4A, R3201, R3200, C2200 y R3202, C2201. Este filtro influye en la característica de la frecuencia y de la amplitud.
   La salida de estos 2 filtros es añadida a las patillas 9 y 10 del IC7200-4B. Finalmente, el IC7300-2A amplifica la señal para compensar el nivel. La señal izquierda adaptada es alimentada al amplificador izquierdo.
   La señal derecha se adapta similarmente: R-IN pasivo filtro de paso bajo, L-IN activo desplazamiento de fase (IC7200-4C), mezclando (IC7400-4D y corrección de amplitud (IC7300-2B).
   Se puede seleccionar las señales "Estéreo increíble" o las señales estándar. Si "INC-SWITCH" está en "alta", TS7001 conducirá y el IC7400 (HEF4053) seleccionará "Estéreo increíble". Si "INC Switch" está en "baja", se seleccionan las señales estándar. El IC7200-4B-4D tomará la polarización de corriente continua (7V) en las patillas 10 y 3 de R3501 y R3502.

Option setting table for software number "A+" (so "A+"!!!) and IC(only for VST sets)

Address	Option A	Value	Option B	Value
239*)	Maximum error limit values for the SAA7282 (TDSD2)			80
240*)	Minimum error limit values for the SAA7282 (TDSD2)			20
241*)	Not used			255
242*)	Not used			255
243*)	Not used			255
244*)	Not used			0
	Not used			0
	Not used			0
	Remote STORE key allowed	0	Remote STORE key not allowed	16
	If no Anubis S CC sets or Anubis S CC set without Multisound panel	0	For Anubis S CC sets with Multisound panel (muting and spatial via IC7132)	8
	Set with no HEF4094 or only one HEF4094 shift register - for Anubis S BB either IC7132 or IC7827 (only one) - for Anubis S CC either IC7132 or IC7827 (only one)	0	Set with two HEF4094 shift registers - for Anubis S BB IC7132 and IC7827 present (both) - for Anubis S CC IC7132 and IC7290 present (both)	4
	Incredible stereo panel present	0	Incredible stereo panel not present	2
	SAA7282 (TDSD2) used as single system	0	SAA7282 (TDSD2) used as dual system (BINICAM)	1
245	2CS stereo decoder (IC7800) present	0	2CS stereo decoder (IC7800) not present	128
	AV stereo playback present	0	AV uses mono only	64
	No AV selectable	0	AV present	32
	No spatial sound possible	0	Spatial sound selectable	16
	No hue control possible	0	Hue control possible	8
	Checksum area to be calculated from address 245 up to and included 253 (also protected EEPROM area by then from 245 up to and included 253)	0	Checksum area to be calculated from address 239 up to and included 253 (also protected EEPROM area by then from 239 up to and included 253) *)	4
	NICAM uses SAA7282 (TDSD2)	0	NICAM uses TDA7280 (TDSD1)	2
	UV973 tuner is used (bandswitch signals for VHF1 and VHF3 are swapped	0	"Normal" bandswitch signals	1
246	No hotel mode possible	0	Hotel mode can be enabled	128
	No UHF tuning possible	0	UHF band allowed	64
	No VHF3 tuning possible	0	VHF3 band allowed	32
	No VHF1 tuning possible	0	VHF1 band allowed	16
	Not used			0
	Multisound panel not present (no sound standard selection)	0	Multisound panel present (auto, M, B/G, I, D/K sound selection possible)	4
	Not used			0
	No colour system selection	0	Auto, SECAM, PAL(/NTSC)	1
247	NICAM panel not present, multisound panel not present			40
	NICAM panel not present, multisound panel present			41
	NICAM panel present, multisound panel not present			168
	NICAM panel present, multisound panel present			169
248	UV 913 / UV 973 (VST)			191
	UV 915 (VST)			42
	UV 953 (VST)			162
249	UV 913 / UV 953 / UV 973 (VST)			93
	UV 915 (VST)			73
250	UV 913 / UV 953 / UV 973 (VST)			25
	UV 915 (VST)0251UV 913 / UV 953 / UV 973 (VST)			134
	UV 915 (VST)			129
252	All VST tuners			0
253	UV 913 / UV 915 / UV 973 (VST)			224
	UV 953 (VST)			225
254	Checksum (see for calculation of the checksum service manual chapter 8) Add data from addresses 245 up to and included 253 or addresses 239 up to and included 253*). Then (if necessary) subtract 256 until the data has a value under 256. If checksum is not OK the set will use default setting.			

GB

Option setting table for software number 12
(only for PLL sets)

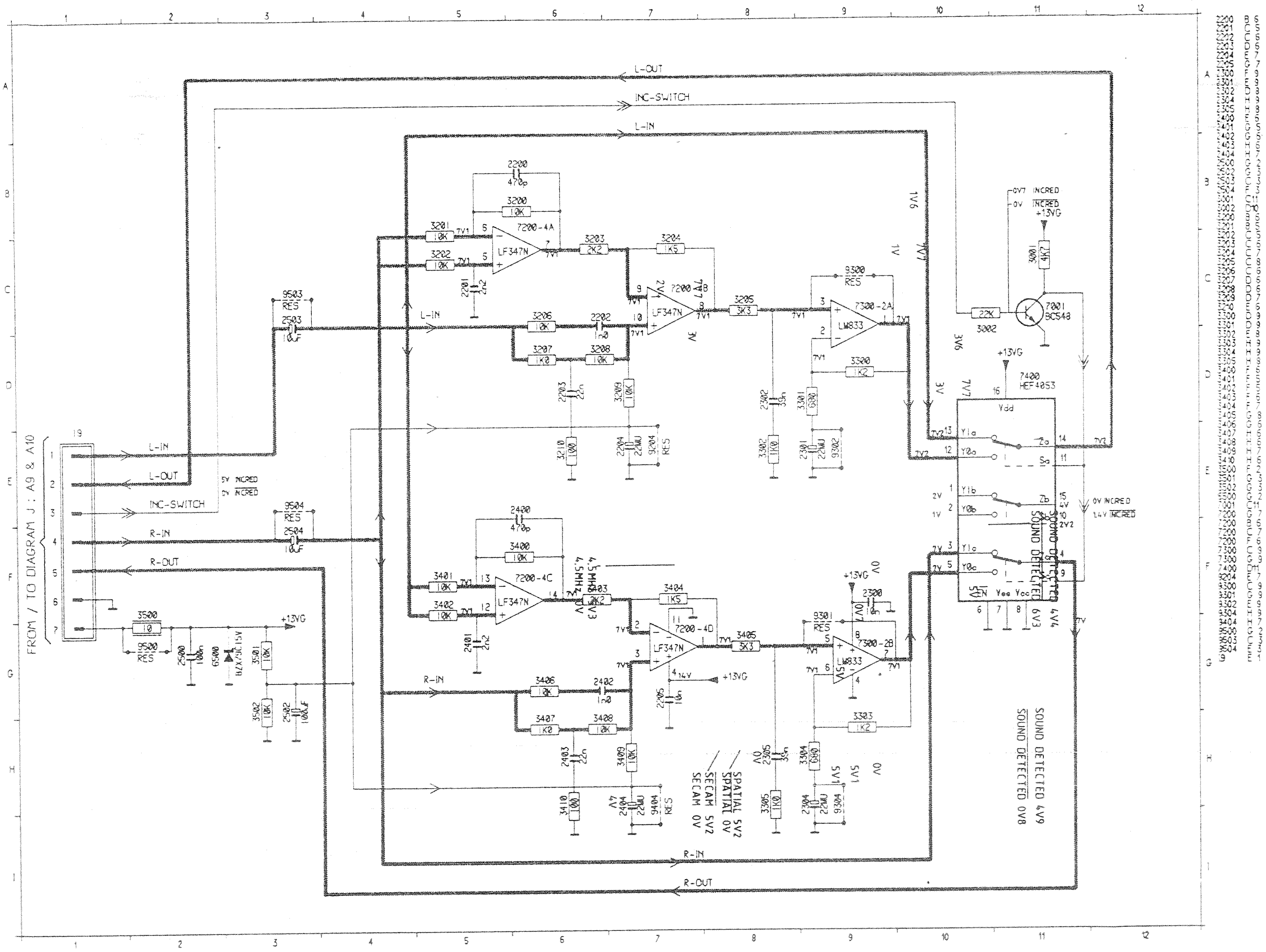
Address	Option A	Value	Option B	Value
252	BTSC panel not present	0	BTSC panel present	128
	Mono set	0	AV stereo playback	64
	No HEF4094 present - for Anubis S BB IC7827 not present - for Anubis S CC IC7290 not present	0	a HEF4094 shift register present - for Anubis S BB IC7827 present - for Anubis S CC IC7290 present	32
	AV selection not allowed	0	AV selection allowed	16
	No trinorma set	0	Trinorma set	8
	No incredible stereo panel present	0	Incredible stereo panel present	4
	Not used			0
	Not used			0
253	No subwoofer present	0	Subwoofer present	128
	5 keys local control	0	8 keys local control	64
	Protection bit can not be saved in EEPROM	0	Protection bit is saved in EEPROM (so after protection occurred, the set remains in protection until entering the Service Mode)	32
	Spatial feature is not present	0	Spatial feature is present	16
	Multi voltage is not present	0	Multi voltage is present	8
	Sharpness feature is not present	0	Sharpness feature is present	4
	Hotel mode not allowed	0	Hotel mode allowed	2
	HUE control disabled	0	HUE control enabled; NTSC only sets	1
254	Checksum (see for calculation of the checksum service manual chapter 8) Add data on address 252 and 253 and then (if necessary) subtract 256 until the data has a value under 256. If checksum is not OK the set will use default setting.			

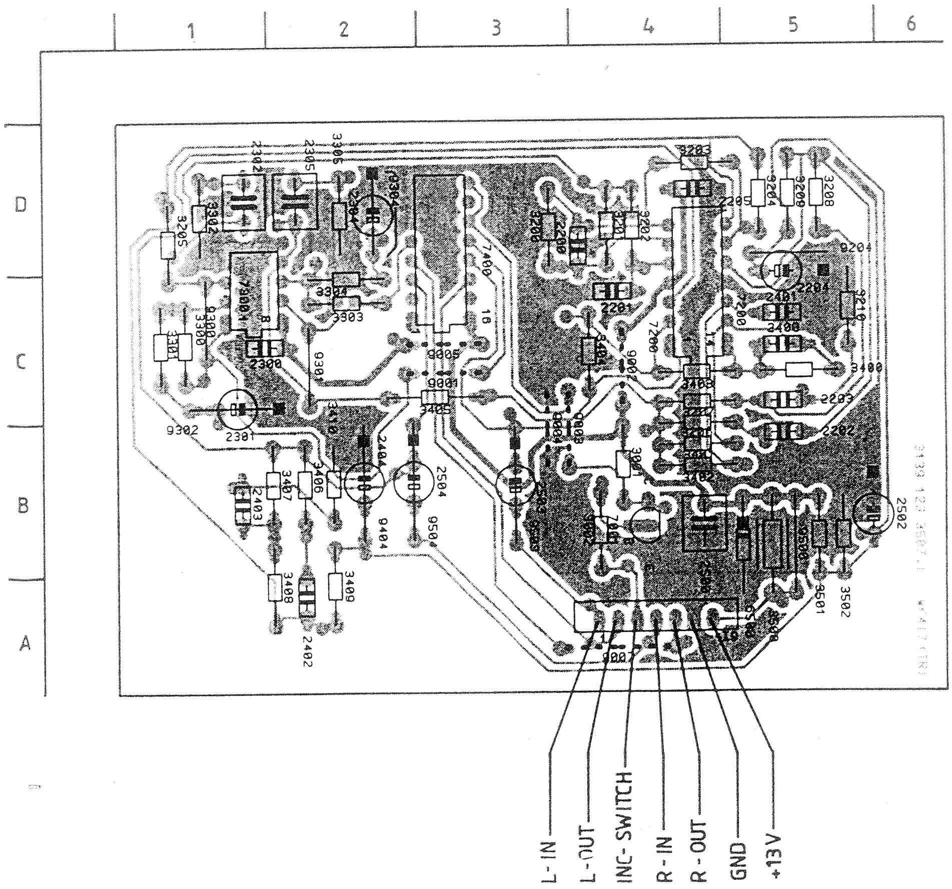
E

Tabla de ajuste de opciones para el número de software 12
(Solamente para aparatos PLL)

Dirección	Opción A	Valor	Opción B	Valor
252	Panel BTSC no presente	0	Panel BTSC presente	128
	Aparato mono	0	Reproducción AV estéreo	64
	HEF 4094 no presente - para anubis S BB IC7827 no presente - para Anubis S CC IC7290 no presente	0	Registro de desfasamiento HEF4094 presente - para Anubis S BB IC7827 presente - para Anubis S CC IC7290 presente	32
	Selección AV no permitido	0	Selección AV permitido	16
	No aparato norma	0	Aparato norma	8
	Panel estéreo increíble no presente	0	Panel estéreo increíble presente	4
	No usado			0
	No usado			0
253	No 'subwoofer' (altavoz de tonos bajos) presente	0	'Subwoofer' presente	128
	Control local 5 teclas	0	Control local 8 teclas	64
	Bit de protección no puede ser almacenado en EEPROM	0	Bit de protección está almacenado en EEPROM (a saber: una vez realizada la protección, el equipo permanece en protección hasta que entra en el Modo de Servicio)	32
	Función espacial no presente	0	Función espacial presente	16
	Multi tensión no presente	0	Multi tensión presente	8
	Función de nitidez no presente	0	Función de nitidez presente	4
	Modo hotel no permitido	0	Modo hotel permitido	2
	Control HUE desactivado	0	Control HUE activado; NTSC solamente activa	1
254	Suma de control: se suman (véase para esta suma el manual de servicio, capítulo 8) los datos a las direcciones 252 y 253 y luego (si fuese necesario) se resta 256 hasta que el dato tenga un valor inferior a 256. Si la suma de control no está correcta, el equipo utilizará los valores por omisión.			

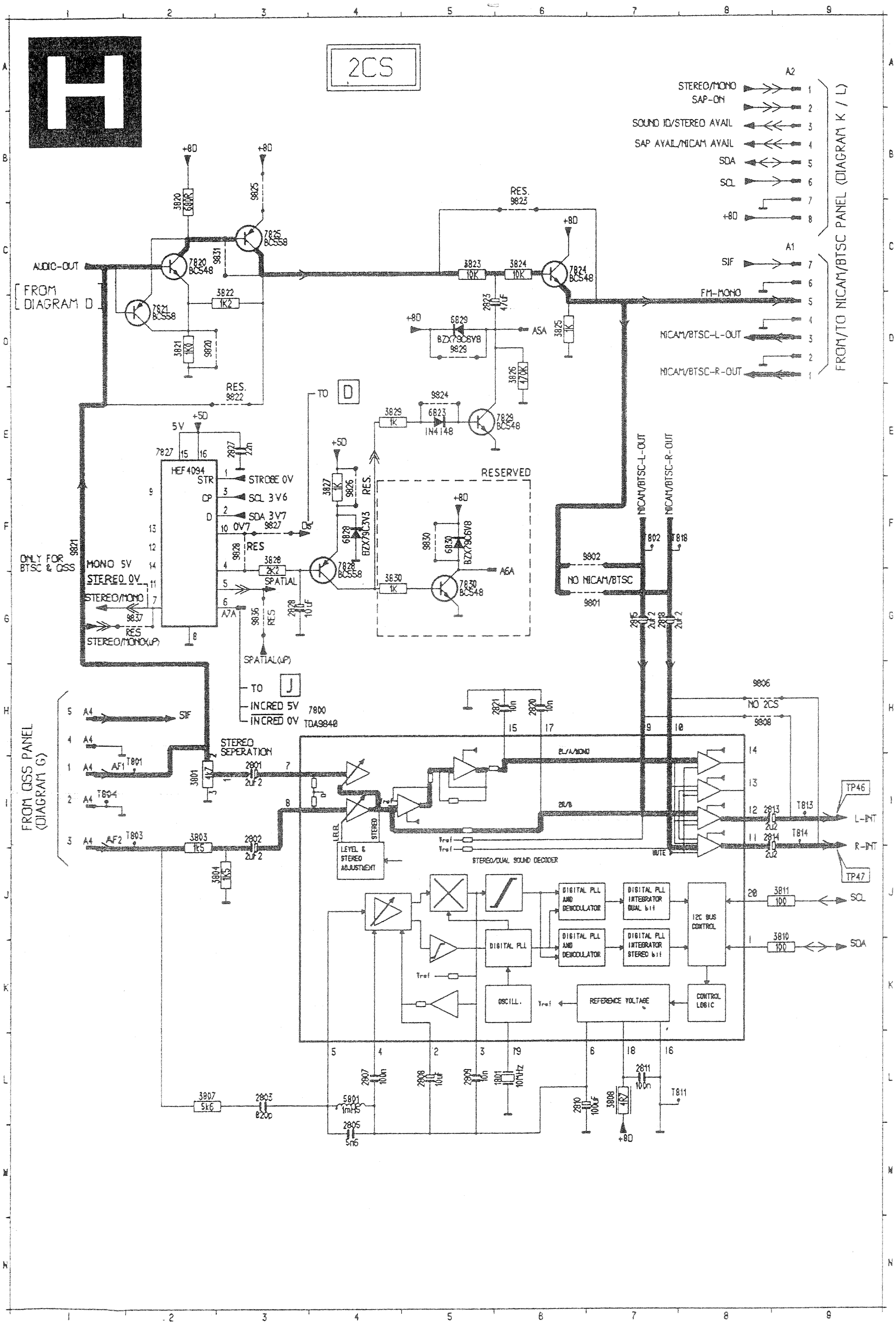
Incredible stereo panel (Anubis S BB&CC)


L-OUT
INC-SWITCH
L-IN
R-IN
R-OUT
FROM / TO DIAGRAM J : A9 & A10
I9
5V INCRED
0V INCRED
7200-4A
LF347N
7200-4B
7200-4C
7200-4D
7300-2A
7300-2B
LM833
7400
HEF4053
7001
BC548
+13VG
6V7 INCRED
0V INCRED
0V INCRED
1.4V INCRED
SOUND DETECTED 4V9
SOUND DETECTED 0V8
SPATIAL 5V2
SPATIAL 0V
SECAM 5V2
SECAM 0V
4.5MHz 4V
4.5MHz 3V3


L-IN
L-OUT
INC-SWITCH
R-IN
R-OUT
GND
+13V

2200	C4
2201	C4
2202	B5
2203	B5
2204	C5
2205	D4
2300	C2
2301	B1
2302	D1
2304	D2
2305	D2
2400	C5
2401	C5
2402	A2
2403	B1
2404	B2
2500	B4
2502	B6
2503	B3
2504	B3
3001	B4
3002	B4
3200	D3
3201	D4
3202	D4
3203	D4
3204	D5
3205	D1
3206	B4
3207	B4
3208	D5
3209	D5
3210	C5
3300	C1
3301	C1
3302	D1
3303	C2
3304	C2
3305	D2
3400	C5
3401	B4
3402	B4
3403	C4
3404	C4
3405	C3
3406	B2
3407	B2
3408	A2
3409	A2
3410	B2
3500	A5
3501	B5
3502	B5
6500	A5
7001	B4
7200	C4
7300	C1
7400	C3
9001	C3
9002	C4
9003	B4
9004	B3
9005	C3
9204	C5
9300	C1
9301	C2
9302	B1
9304	D2
9404	B2
9500	A5
9503	B3
9504	B3
I9	A4

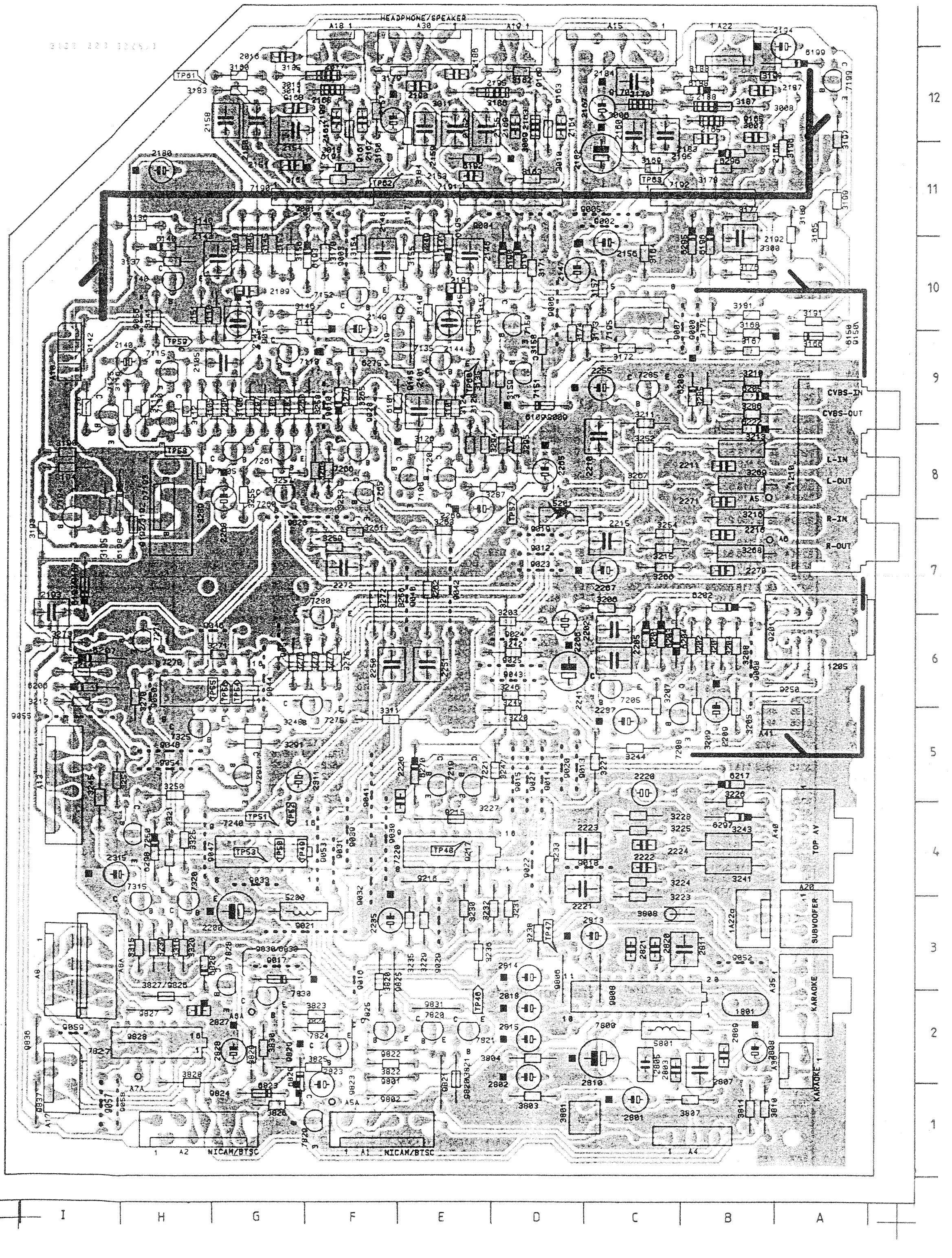
2 CS + I/O part (Anubis S BB)



H
2CS
STEREO/MONO
SAP-ON
SOUND ID/STEREO AVAIL
SAP AVAIL/NICAM AVAIL
SDA
SCL
+8D
A2
A1
SIF
FM-MONO
NICAM/BTSC-L-OUT
NICAM/BTSC-R-OUT
FROM/TO NICAM/BTSC PANEL (DIAGRAM K / L)
AUDIO-OUT
FROM DIAGRAM D
7820 BC548
7821 BC558
7825 BC558
7824 BC548
RES. 9823
3823 10K
3824 10K
2823 47uF
6829 BZX79C6V8
ASA
3826 470K
RES. 9822
TO D
3829 1K
6823 1N4148
7829 BC548
7827 HEF4094
STROBE 0V
SCL 3V6
SDA 3V7
0V7
RESERVED
6828 BZX79C3V3
6830 BZX79C6V8
7828 BC558
7830 BC548
3830 1K
A6A
SPATIAL
A7A
SPATIAL(µP)
ONLY FOR BTSC & QSS
MONO 5V
STEREO 0V
STEREO/MONO
STEREO/MONO(µP)
TO J
INCRED 5V
INCRED 0V
7800 TDA9840
NO NICAM/BTSC
9802
9801
NICAM/BTSC-L-OUT
NICAM/BTSC-R-OUT
9806
NO 2CS
9808
FROM QSS PANEL (DIAGRAM G)
AF1
AF2
T801
T803
T804
STEREO SEPERATION
3801 4K7
2801 2uF2
3803 1K5
2802 2uF2
3804 1K5
LEVEL & STEREO ADJUSTMENT
STEREO/DUAL SOUND DECODER
DIGITAL PLL AND DEMODULATOR
DIGITAL PLL INTEGRATOR DUAL bit
DIGITAL PLL INTEGRATOR STEREO bit
DIGITAL PLL
I2C BUS CONTROL
OSCILL.
REFERENCE VOLTAGE
CONTROL LOGIC
MUTE
TP46
TP47
L-INT
R-INT
T813
T814
3811 100
3810 100
3807 5K6
2803 820p
5801 1mH5
2805 5n6
2907 100n
2808 10uF
2809 10n
1801 10MHz
2810 100uF
3808 4R7
2811 100n
T811

1801	L	6
2801	I	3
2802	I	3
2803	L	3
2805	M	4
2807	L	4
2808	L	5
2809	L	5
2810	L	6
2811	L	7
2813	I	8
2814	I	8
2815	G	7
2818	G	7
2820	H	6
2821	H	6
2823	D	5
2827	E	3
2828	G	3
3801	I	2
3803	I	2
3804	J	3
3807	L	2
3808	L	7
3810	K	9
3811	J	9
3820	B	2
3821	D	2
3822	D	3
3823	C	5
3824	C	6
3825	D	6
3826	D	6
3827	F	4
3828	F	3
3829	E	4
3830	G	4
5801	L	4
6823	E	5
6828	F	4
6829	D	5
6830	F	5
7800	H	3
7820	C	2
7821	D	2
7824	C	6
7825	C	3
7827	E	2
7828	F	4
7829	E	6
7830	G	5
9801	G	7
9802	F	7
9806	H	8
9808	H	8
9820	D	2
9821	F	1
9822	E	3
9823	C	6
9824	E	5
9825	B	3
9826	F	4
9827	F	3
9828	F	3
9829	D	5
9830	F	5
9831	C	3
9836	G	3
9837	G	2
A1	C	9
A1	D	9
A1	D	9
A1	D	9
A1	D	9
A1	D	9
A1	C	9
A2	A	9
A2	C	9
A2	B	9
A2	B	9
A2	B	9
A2	B	9
A2	B	9
A2	A	9
A4	I	1
A4	I	1
A4	I	1
A4	H	1
A4	H	1
A5A	D	6
A6A	G	6
A7A	G	3
T801	I	2
T802	F	7
T803	I	2
T804	I	1
T811	L	8
T813	I	9
T814	I	9
T818	F	8

2 CS + I/O + Amplification part (Anubis S BB)



1205	A6
1210	A8
1801	B2
2016	G12
2017	F12
2101	E9
2105	G9
2140	H9
2141	G10
2142	G10
2143	G10
2144	E10
2145	E10
2146	E10
2147	D10
2148	F10
2149	F9
2150	G12
2151	G11
2152	E12
2153	E11
2154	G12
2155	E12
2156	C10
2157	F12
2158	G12
2159	E12
2160	C12
2161	F12
2162	F12
2163	D12
2164	D12
2165	B12
2166	B12
2167	C12
2168	F12
2169	D12
2170	C12
2180	H11
2182	C11
2183	B12
2184	C12
2185	C12
2186	E12
2187	B12
2188	B12
2189	G10
2190	E12
2191	E10
2192	B10
2193	I6
2194	A12
2195	D12
2199	G12
2200	G3
2202	C6
2205	C6
2206	D6
2209	B5
2210	C8
2211	B8
2215	C7
2216	B7
2220	C5
2221	D4
2222	C4
2223	D4
2224	C4
2226	E4
2235	F3
2241	D6
2250	F6
2251	E6
2255	C9
2265	D8
2267	C7
2268	G8
2269	E8
2270	B7
2271	B8
2272	F7
2287	C5
2311	G5
2315	I4
2801	C1
2802	D2
2803	C2
2805	C2
2807	B2
2808	B2
2809	B2
2810	C2
2811	B3
2813	C3
2814	D3
2815	D2
2818	D2
2820	C3
2821	C3
2823	F1
2827	H2
2828	G2
3006	C12
3007	B12
3008	B12
3009	D12
3010	D12
3011	E12
3014	F12
3015	F12
3016	F12
3101	E9
3105	H9
3106	G9
3108	G9
3110	G10
3112	H9
3115	H9
3116	H9
3120	E8
3121	D8
3124	E9
3126	E8
3130	I9
3135	E9
3136	H11
3137	H10
3140	H11
3141	H10
3143	G10
3144	G9
3145	G10
3146	G10
3147	E10
3148	E10
3149	E10
3150	E10
3151	H10
3152	E10
3153	G10
3154	F10
3155	E10
3156	G10
3157	C10
3158	D9
3159	D9
3160	G12
3161	F11
3162	D12
3163	D11
3164	C10
3165	A11
3166	A9
3167	B9
3168	B9
3169	C11
3170	F10
3171	D10
3172	C9
3173	C9
3174	D9
3175	B10
3176	B10
3177	B11
3178	B11
3179	F12
3180	F12
3181	B10
3183	G12
3184	E12
3185	F12
3186	D12
3187	B12
3188	B12
3189	A10
3190	I8
3191	A10
3192	H7
3193	I7
3194	I8
3195	I8
3196	A11
3197	A12
3198	B12
3199	A11
3201	B6
3202	B6
3203	D6
3204	B6
3205	B5
3206	C7
3207	C5
3208	B6
3209	B5
3210	B9
3211	C8
3212	I6
3213	B8
3214	I6
3215	C7
3216	B7
3220	D5
3221	C5
3223	C3
3224	C4
3225	C4
3226	B4
3227	E4
3228	C4
3229	E3
3230	E3
3231	D3
3232	D3
3233	D4
3235	E3
3236	E3
3238	D3
3239	H3
3241	B4
3242	D6
3243	B4
3244	C5
3245	I5
3246	D6
3247	D5
3248	G5
3249	D5
3250	H5
3251	I5
3252	C8
3253	F8
3254	C7
3255	G8
3256	F7
3257	G8
3258	F9
3259	F7
3260	G9
3261	F7
3262	E7
3263	E7
3264	F8
3265	F9
3266	C7
3267	C8
3268	B7
3269	B8
3270	H6
3271	G6
3272	F7
3273	I6
3275	F6
3276	G6
3277	F6
3278	F6
3283	G9
3285	B9
3286	B9
3287	E8
3289	H8
3291	G5
3294	E8
3295	D8
3296	G9
3297	G9
3300	B10
3311	F5
3315	H3
3316	H3
3320	H3
3321	H4
3325	H4
3597	I12
3598	I12
3599	I11
3801	C1
3803	D1
3804	D2
3807	B1
3808	B3
3810	B1
3811	B1
3820	F3
3821	E2
3822	F2
3823	F2
3824	F2
3825	F2
3826	G1
3827	H2
3828	H1
3829	G2
3830	G2
5200	F3
5201	D8
5801	C2
6101	F9
6109	D9
6140	H10
6150	A9
6188	B12
6190	D10
6191	D10
6192	E11
6193	F10
6194	F11
6195	E10
6196	B10
6197	I7
6198	H8
6199	A12
6201	C6
6202	B7
6203	C6
6204	C6
6205	B9
6206	I6
6207	I6
6208	B9
6217	B5
6222	B8
6270	E5
6275	F9
6276	F9
6295	B10
6296	B11
6297	B4
6298	H4
6823	G1
6828	H3
6829	G1
6830	G3
7105	G8
7106	E8
7110	G9
7115	H9
7120	E8
7125	I9
7130	H9
7135	E9
7140	H10
7150	D10
7151	D9
7152	F10
7190	F11
7191	D11
7192	B11
7193	H8
7194	I7
7195	C10
7199	A12
7205	C6
7208	B5
7219	E5
7220	E4
7221	E5
7240	G4
7250	H4
7260	G8
7261	G8
7265	F8
7266	F8
7270	H6
7271	H6
7275	F6
7280	F6
7285	C9
7291	G5
7315	H3
7320	H3
7325	H5
7800	C2
7820	E2
7821	E2
7824	F2
7825	F2
7827	H2
7828	G3
7829	F1
7830	G2
9000	B10
9001	F11
9002	C11
9003	F10
9004	D11
9005	C11
9006	D10
9007	C10
9008	B6
9009	D9
9010	F9
9011	G9
9012	D7
9013	D5
9014	D5
9015	D5
9016	F3
9017	G3
9018	C4
9019	D7
9020	D5
9021	F3
9022	D4
9023	D7
9024	D6
9025	D6
9026	F7
9027	D5
9028	F9
9029	E3
9030	F4
9031	F4
9032	F4
9033	G4
9039	F4
9040	E7
9041	F5
9042	E7
9043	D6
9044	G6
9045	G10
9046	G6
9047	H4
9048	H5
9049	E10
9050	H6
9051	G6
9052	B3
9053	F4
9054	H5
9055	I5
9056	H10
9057	I1
9058	I1
9059	I2
9142	I9
9145	E9
9150	A9
9161	F12
9163	D12
9165	B12
9167	I7
9168	F12
9169	D12
9170	C12
9132	H7
9201	B6
9215	E4
9216	E4
9217	E4
9250	A6
9801	F2
9802	F1
9806	D3
9808	C3
9820	E2
9821	E1
9822	F2
9823	F2
9824	G1
9825	F3
9826	H2
9827	H2
9828	H2
9829	G1
9830	G3
9831	E2
9836	I2
9837	I1
A1	F1
A2	H1
A4	B1
A5	B8
A5A	F1
A6	B7
A6A	G2
A7	E10
A7A	H2
A8	I3
A8A	I3
A9	F9
A10	I9
A13	I5
A15	C12
A17	I1
A18	F12
A19	D12
A20	A3
A22	B12
A22a	B3
A30	E12
A35	A2
A36	A2
A40	A4
A41	A5

PCS 74 349

Spare parts list / Listado de Repuestos

Microprocessors

7600	4822 209 33773	PCA84C844P/163 (number A+ V0.9)
7600	4822 209 33622	P83C055-CV6108 (number 12 V2.8)
7600	4822 209 52596	P83C055-CV6118 (number 12 V2.9)

2CS+I/O+Ampl panel (for interfacing to incredible stereo panel) [H/I/J]

Various

	4822 276 13499	1 pin 2.35 mm 50 mA/24V
	4822 265 30913	3 pins male WTB for A20
	4822 265 31193	3 pins male WTB
	4822 265 30378	4 pins male WTB
	4822 265 30933	Header 4 pins
	4822 265 40421	6 pins male WTB
	4822 290 40295	7 pins male WTB
	4822 265 40818	8 pins male WTB
	4822 267 41149	6 pole cinch block
	4822 460 11004	Ornamental plate cinch only
	4822 460 11005	Ornamental plate cinch + SVHS
	4822 492 70788	IC spring for amplifiers
1801	4822 242 80276	10.000 000 MHz

⊣⊢

2101	4822 121 41856	22nF 5% 250V
2105	5322 121 42465	68nF 5% 63V
2140	4822 124 21443	2.2µF 20% 50V
2141▲	4822 124 40246	4.7µF 20% 63V
2144▲	4822 124 40246	4.7µF 20% 63V
2147	5322 124 41431	22µF 20% 35V
2148	4822 121 41856	22nF 5% 250V
2149	4822 124 40248	10µF 20% 63V
2150	5322 121 42386	100nF 5% 63V
2151	4822 126 12643	22nF 20% 50V
2152	5322 121 42386	100nF 5% 63V
2153	4822 126 12643	22nF 20% 50V
2154	5322 121 42386	100nF 5% 63V
2155	5322 121 42386	100nF 5% 63V
2156	5322 124 41431	22µF 20% 35V
2157	4822 124 40248	10µF 20% 63V
2160	5322 121 42386	100nF 5% 63V
2161	4822 121 43526	47nF 5% 250V
2162	4822 121 43526	47nF 5% 250V
2163	4822 121 43526	47nF 5% 250V
2164	4822 121 43526	47nF 5% 250V
2166	4822 126 12643	22nF 20% 50V
2167	4822 124 41407	0.47µF 20% 63V
2168	4822 126 12639	2.2nF 20%
2169	4822 126 12639	2.2nF 20%
2180	4822 124 40248	10µF 20% 63V
2182	4822 124 22263	220µF 20% 25V
2183	4822 122 33306	4.7nF 5% 50V
2184	5322 121 42661	330nF 5% 63V
2185	4822 121 42408	220nF 5% 63V
2187	4822 126 12643	22nF 20% 50V
2189	4822 121 51379	82nF 5% 63V
2191	4822 121 51379	82nF 5% 63V
2192	4822 121 43823	470nF 5% 50V
2193	4822 121 42408	220nF 5% 63V
2200	4822 124 40255	100µF 20% 63V
2202	5322 121 42386	100nF 5% 63V
2205	4822 121 42408	220nF 5% 63V
2206	4822 124 80854	1µF 20% 50V
2209	4822 124 40248	10µF 20% 63V
2210	4822 121 51252	470nF 5% 63V
2211	4822 126 12519	330pF 10%
2215	4822 121 51252	470nF 5% 63V
2216	4822 126 12519	330pF 10%
2226	5322 122 32491	1nF 20% 100V
2235	4822 124 40248	10µF 20% 63V
2241	4822 124 40255	100µF 20% 63V
2250	4822 121 51252	470nF 5% 63V
2251	4822 121 51252	470nF 5% 63V
2255	4822 124 40248	10µF 20% 63V
2265	4822 124 40242	1µF 20% 63V
2267	4822 124 40242	1µF 20% 63V
2268	4822 124 40242	1µF 20% 63V
2269	4822 124 40242	1µF 20% 63V
2270	5322 122 32491	1nF 20% 100V
2271	5322 122 32491	1nF 20% 100V
2287	4822 124 40248	10µF 20% 63V
2311	4822 124 80854	1µF 20% 50V
2315	4822 124 40248	10µF 20% 63V
2801	4822 124 41576	2.2µF 20% 50V
2802	4822 124 41576	2.2µF 20% 50V
2803	5322 122 32356	820pF 10% 100V
2805	4822 121 51372	5.6nF 2% 250V
2807	5322 121 42386	100nF 5% 63V
2808	4822 124 40248	10µF 20% 63V
2809	4822 121 41857	10nF 5% 250V
2810	4822 124 41643	100µF 20% 16V
2811	5322 121 42386	100nF 5% 63V
2813	4822 124 41576	2.2µF 20% 50V
2814	4822 124 41576	2.2µF 20% 50V
2815	4822 124 41576	2.2µF 20% 50V
2818	4822 124 41576	2.2µF 20% 50V
2820	4822 121 41857	10nF 5% 250V
2821	4822 121 41857	10nF 5% 250V
2823	4822 124 22347	15µF 50V 10%
2827	4822 126 12643	22nF 20% 50V
2828	4822 124 40248	10µF 20% 63V

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3007	4822 050 26808	6Ω8 1% 0.6W
3008	4822 050 26808	6Ω8 1% 0.6W
3101	4822 116 52175	100Ω 5% 0.5W
3105▲	4822 116 52263	2k7 5% 0.5W
3106▲	4822 116 52233	10k 5% 0.5W
3108▲	4822 116 52256	2k2 5% 0.5W
3110	4822 116 52243	1k5 5% 0.5W
3112	4822 116 52285	470k 5% 0.5W
3115▲	4822 116 52283	4k7 5% 0.5W
3116▲	4822 116 52283	4k7 5% 0.5W
3120▲	4822 116 52263	2k7 5% 0.5W
3121▲	4822 116 52256	2k2 5% 0.5W
3124▲	4822 116 52233	10k 5% 0.5W
3126	4822 116 52303	8k2 5% 0.5W
3130▲	4822 116 52233	10k 5% 0.5W
3135	4822 116 52243	1k5 5% 0.5W
3136	4822 116 52257	22k 5% 0.5W
3137	4822 116 52284	47k 5% 0.5W
3140▲	4822 116 52283	4k7 5% 0.5W
3141	4822 116 52296	6k8 5% 0.5W
3143▲	4822 116 52263	2k7 5% 0.5W
3147▲	4822 116 52263	2k7 5% 0.5W
3151▲	4822 116 52256	2k2 5% 0.5W
3152▲	4822 116 52256	2k2 5% 0.5W
3153	4822 116 52207	1k2 5% 0.5W
3154	4822 116 52207	1k2 5% 0.5W
3155	4822 116 52277	39k 5% 0.5W
3156	4822 050 11002	1k 1% 0.4W
3157	4822 116 52226	560Ω 5% 0.5W
3158	4822 116 52285	470k 5% 0.5W
3159	4822 116 52285	470k 5% 0.5W
3160▲	4822 116 52269	3k3 5% 0.5W
3161	4822 116 52257	22k 5% 0.5W
3162▲	4822 116 52269	3k3 5% 0.5W
3163	4822 116 52257	22k 5% 0.5W
3164	4822 050 11002	1k 1% 0.4W
3165▲	4822 116 52283	4k7 5% 0.5W
3167	4822 116 52257	22k 5% 0.5W
3168	4822 116 52257	22k 5% 0.5W
3169▲	4822 116 52193	39Ω 5% 0.5W
3170▲	4822 116 52283	4k7 5% 0.5W
3171▲	4822 116 52283	4k7 5% 0.5W
3172	4822 116 52292	560k 5% 0.5W
3173	4822 116 52292	560k 5% 0.5W
3174	4822 116 52265	270k 5% 0.5W
3175	4822 116 52249	1k8 5% 0.5W
3176	4822 116 52249	1k8 5% 0.5W
3177▲	4822 116 52269	3k3 5% 0.5W
3178	4822 050 11002	1k 1% 0.4W
3179▲	4822 116 52233	10k 5% 0.5W
3180	4822 116 52271	33k 5% 0.5W
3185	4822 050 26808	6Ω8 1% 0.6W
3186	4822 050 26808	6Ω8 1% 0.6W
3189	4822 116 52304	82k 5% 0.5W
3190	4822 116 52276	3k9 5% 0.5W
3191	4822 116 52245	150k 5% 0.5W
3192	4822 116 52289	5k6 5% 0.5W
3193	4822 116 52289	5k6 5% 0.5W
3194	4822 116 52289	5k6 5% 0.5W
3195	4822 116 52213	180Ω 5% 0.5W
3199▲	4822 116 52269	3k3 5% 0.5W
3201	4822 116 52201	75Ω 5% 0.5W
3202	4822 050 11002	1k 1% 0.4W
3203	4822 116 52175	100Ω 5% 0.5W
3204	4822 050 11002	1k 1% 0.4W
3205	4822 050 11002	1k 1% 0.4W
3206	4822 116 52175	100Ω 5% 0.5W
3207	4822 116 52285	470k 5% 0.5W
3208	4822 116 52201	75Ω 5% 0.5W
3209▲	4822 116 52256	2k2 5% 0.5W
3210	4822 116 52201	75Ω 5% 0.5W
3211	4822 116 52258	220k 5% 0.5W
3212	4822 116 52175	100Ω 5% 0.5W
3213▲	4822 050 22702	2k7 1% 0.6W
3214	4822 116 52175	100Ω 5% 0.5W
3215	4822 116 52258	220k 5% 0.5W
3216▲	4822 050 22702	2k7 1% 0.6W
3220	4822 116 52284	47k 5% 0.5W
3229	4822 116 52234	100Ω 5% 0.5W
3231	4822 116 52234	100Ω 5% 0.5W
3233▲	4822 116 52233	10k 5% 0.5W
3235▲	4822 116 52233	10k 5% 0.5W
3236	4822 116 52234	100Ω 5% 0.5W
3238	4822 116 52234	100Ω 5% 0.5W
3239▲	4822 116 52283	4k7 5% 0.5W
3242	4822 116 52276	3k9 5% 0.5W
3244▲	4822 116 52233	10k 5% 0.5W
3245▲	4822 116 52283	4k7 5% 0.5W
3246	4822 116 52284	47k 5% 0.5W
3247▲	4822 116 52233	10k 5% 0.5W
3248	4822 050 11002	1k 1% 0.4W
3249	4822 116 52207	1k2 5% 0.5W
3250▲	4822 116 52283	4k7 5% 0.5W
3251	4822 116 52257	22k 5% 0.5W
3252	4822 116 52289	5k6 5% 0.5W
3253	4822 116 52226	560Ω 5% 0.5W
3254	4822 116 52289	5k6 5% 0.5W
3255	4822 116 52226	560Ω 5% 0.5W
3256	4822 116 52271	33k 5% 0.5W
3257	4822 116 52284	47k 5% 0.5W
3258	4822 116 52289	5k6 5% 0.5W
3260	4822 116 52211	150Ω 5% 0.5W
3262	4822 116 52271	33k 5% 0.5W
3263	4822 116 52284	47k 5% 0.5W
3264	4822 116 52289	5k6 5% 0.5W
3265	4822 116 52211	150Ω 5% 0.5W
3266▲	4822 116 52219	330Ω 5% 0.5W
3267▲	4822 116 52219	330Ω 5% 0.5W
3268▲	4822 050 21501	150Ω 1% 0.6W
3269▲	4822 050 21501	150Ω 1% 0.6W
3270	4822 116 52234	100Ω 5% 0.5W
3271▲	4822 116 52283	4k7 5% 0.5W
3273	4822 116 52257	22k 5% 0.5W
3275	4822 050 11002	1k 1% 0.4W
3276	4822 116 52226	560Ω 5% 0.5W
3277	4822 050 11002	1k 1% 0.4W
3278	4822 116 52226	560Ω 5% 0.5W
3283	4822 116 52296	6k8 5% 0.5W
3285	4822 116 52213	180Ω 5% 0.5W
3286▲	4822 116 52199	68Ω 5% 0.5W
3287▲	4822 116 52283	4k7 5% 0.5W
3289▲	4822 116 52283	4k7 5% 0.5W
3291▲	4822 116 52283	4k7 5% 0.5W
3294	4822 116 52291	56k 5% 0.5W
3295	4822 116 52271	33k 5% 0.5W
3296	4822 116 52291	56k 5% 0.5W
3297	4822 116 52271	33k 5% 0.5W
3300	4822 116 52238	12k 5% 0.5W
3311▲	4822 116 52233	10k 5% 0.5W
3315	4822 116 52175	100Ω 5% 0.5W
3316	4822 116 52226	560Ω 5% 0.5W
3320▲	4822 116 52283	4k7 5% 0.5W
3321	4822 116 52257	22k 5% 0.5W
3325	4822 116 52257	22k 5% 0.5W
3597	4822 116 52244	15k 5% 0.5W
3597	4822 116 52271	33k 5% 0.5W
3597	4822 116 52277	39k 5% 0.5W
3599▲	4822 116 52272	330k 5% 0.5W
3599	4822 116 52284	47k 5% 0.5W
3801	4822 100 11319	4k7 30% lin 0.1W
3803	4822 116 52243	1k5 5% 0.5W
3804	4822 050 11002	1k 1% 0.4W
3807	4822 116 52289	5k6 5% 0.5W
3808▲	4822 052 10478	4Ω7 5% 0.33W
3810	4822 116 52175	100Ω 5% 0.5W
3811	4822 116 52175	100Ω 5% 0.5W
3820	4822 050 11002	1k 1% 0.4W
3520	4822 116 52228	680Ω 5% 0.5W
3821	4822 050 11002	1k 1% 0.4W
3822	4822 116 52207	1k2 5% 0.5W
3823▲	4822 116 52233	10k 5% 0.5W
3824▲	4822 116 52233	10k 5% 0.5W
3825	4822 050 11002	1k 1% 0.4W
3826	4822 116 52285	470k 5% 0.5W
3827	4822 116 52222	390Ω 5% 0.5W
3828▲	4822 116 52256	2k2 5% 0.5W
3829	4822 050 11002	1k 1% 0.4W

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5200	4822 157 50964	100µH
5201	4822 157 50964	100µH
5801	4822 157 70467	1500µH

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6101	4822 130 34488	BZX79-C11
6140	4822 130 34278	BZX79-C6V8
6150▲	4822 130 30621	1N4148
6190▲	4822 130 30621	1N4148
6191	4822 130 34174	BZX79-C4V7
6192▲	4822 130 30621	1N4148
6193	4822 130 34174	BZX79-C4V7
6194▲	4822 130 30621	1N4148
6195▲	4822 130 30621	1N4148
6196▲	4822 130 30621	1N4148
6197▲	4822 130 30621	1N4148
6198	4822 130 34167	BZX79-C6V2
6201	4822 130 34382	BZX79-C8V2
6202	4822 130 34382	BZX79-C8V2
6203	4822 130 34382	BZX79-C8V2
6204	4822 130 34382	BZX79-C8V2
6205	4822 130 34382	BZX79-C8V2
6206	4822 130 34382	BZX79-C8V2
6207	4822 130 34382	BZX79-C8V2
6208	4822 130 34382	BZX79-C8V2
6222	4822 130 34382	BZX79-C8V2
6275▲	4822 130 30621	1N4148
6276▲	4822 130 30621	1N4148
6295	4822 130 34174	BZX79-C4V7
6296▲	4822 130 30621	1N4148
6298▲	4822 130 30621	1N4148
6823▲	4822 130 30621	1N4148
6828	5322 130 31504	BZX79-C3V3

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7105	4822 130 40938	BC548
7106	4822 130 40941	BC558
7110	4822 130 40938	BC548
7115	4822 130 40941	BC558
7120	4822 130 40938	BC548
7125	4822 130 40941	BC558
7130	4822 130 40941	BC558
7135	4822 130 40938	BC548
7140	4822 130 40938	BC548
7150	4822 130 40938	BC548
7151	4822 130 40938	BC548
7152	4822 130 40938	BC548
7190	4822 209 32531	TDA7056A/N2
7191	4822 209 32531	TDA7056A/N2
7192	4822 209 32531	TDA7056A/N2
7193	4822 130 63427	BD534FI
7194	4822 130 40938	BC548
7195	4822 209 70672	LM358N
7205	4822 130 40938	BC548
7208	4822 130 40938	BC548
7219▲	4822 130 44197	BC558B
7240	5322 209 10576	HEF4053BP
7250	4822 130 40938	BC548
7260	4822 130 40938	BC548
7261	4822 130 40941	BC558
7265	4822 130 40938	BC548
7266	4822 130 40941	BC558
7270	5322 209 10576	HEF4053BP
7271	4822 130 40938	BC548
7275	4822 130 40938	BC548
7280	4822 130 40941	BC558
7285	4822 130 40938	BC548
7291	4822 130 40941	BC558
7315	4822 130 40938	BC548
7320	4822 130 40938	BC548
7325	4822 130 40941	BC558
7800	4822 209 32863	TDA9840/V1
7820	4822 130 40938	BC548
7821	4822 130 40941	BC558
7824	4822 130 40938	BC548
7825	4822 130 40941	BC558
7827	5322 209 10421	HEF4094BP
7828	4822 130 40941	BC558
7829	4822 130 40938	BC548

Incredible stereo panel

Various

	4822 264 40207	3P male WTB
	4822 265 30378	4P male WTB
1140	4822 212 31645	Incredible stereo panel

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2200	5322 122 32311	470pF 10% 100V
2201	4822 126 12639	2.2nF 20%
2202	5322 122 32491	1nF 20% 100V
2203	4822 126 12643	22nF 20% 50V
2204	4822 124 41596	22µF 20% 50V
2205	4822 126 12642	10nF 20% 50V
2300	4822 126 12642	10nF 20% 50V
2301	4822 124 41596	22µF 20% 50V
2302	4822 121 51256	39nF 10% 50V
2304	4822 124 41596	22µF 20% 50V
2305	4822 121 51256	39nF 10% 50V
2400	5322 122 32311	470pF 10% 100V
2401	4822 126 12639	2.2nF 20%
2402	5322 122 32491	1nF 20% 100V
2403	4822 126 12643	22nF 20% 50V
2404	4822 124 41596	22µF 20% 50V

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3001▲	4822 116 52233	10k 5% 0.5W
3002	4822 116 52257	22k 5% 0.5W
3005	4822 116 52271	33k 5% 0.5W
3100	4822 116 52291	56k 5% 0.5W
3101▲	4822 116 52256	2k2 5% 0.5W
3102▲	4822 116 52256	2k2 5% 0.5W
3103	4822 116 52271	33k 5% 0.5W
3104	4822 116 52291	56k 5% 0.5W
3106	4822 116 52291	56k 5% 0.5W
3107	4822 116 52271	33k 5% 0.5W
3108	4822 116 52291	56k 5% 0.5W
3109	4822 116 52271	33k 5% 0.5W
3200▲	4822 116 52233	10k 5% 0.5W
3201▲	4822 116 52233	10k 5% 0.5W
3202▲	4822 116 52233	10k 5% 0.5W
3203▲	4822 116 52256	2k2 5% 0.5W
3204	4822 116 52243	1k5 5% 0.5W
3205▲	4822 116 52269	3k3 5% 0.5W
3206▲	4822 116 52233	10k 5% 0.5W
3207	4822 050 11002	1k 1% 0.4W
3208▲	4822 116 52233	10k 5% 0.5W
3209▲	4822 116 52233	10k 5% 0.5W
3210	4822 116 52175	100Ω 5% 0.5W
3300▲	4822 116 52263	2k7 5% 0.5W
3301	4822 116 52228	680Ω 5% 0.5W
3302	4822 050 11002	1k 1% 0.4W
3303▲	4822 116 52263	2k7 5% 0.5W
3304	4822 116 52228	680Ω 5% 0.5W
3305	4822 050 11002	1k 1% 0.4W
3400▲	4822 116 52233	10k 5% 0.5W
3401▲	4822 116 52233	10k 5% 0.5W
3402▲	4822 116 52233	10k 5% 0.5W
3403▲	4822 116 52256	2k2 5% 0.5W
3404	4822 116 52243	1k5 5% 0.5W
3405▲	4822 116 52269	3k3 5% 0.5W
3406▲	4822 116 52233	10k 5% 0.5W
3407	4822 050 11002	1k 1% 0.4W
3408▲	4822 116 52233	10k 5% 0.5W
3409▲	4822 116 52233	10k 5% 0.5W
3410	4822 116 52175	100Ω 5% 0.5W

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7001	4822 130 40938	BC548
7100	5322 209 10576	HEF4053BP
7101	4822 130 40938	BC548
7102	4822 130 40938	BC548
7200	4822 209 80587	LM324N
7300▲	4822 209 83163	LM833N
7400	5322 209 10576	HEF4053BP

Multisound panel [D]

Various

	4822 212 31346	Multisound panel
▲	4822 265 20366	1 pin header 2.35 mm
	4822 265 40421	6 pins male WTB
	4822 165 30378	4 pins male WTB
	4822 266 30276	4 pins female BTB (AU)
	4822 265 40471	8 pins female BTB (AU)
1101	4822 242 72547	5.5MHz
1102	4822 242 71713	6.0MHz
1103	4822 242 72057	6.5MHz
1104	4822 242 71725	4.5MHz

⊣⊢

2105	4822 122 33293	100pF 5% 50V
2106	5322 122 32491	1nF 20% 100V
2107	4822 124 40242	1µF 20% 63V
2108	4822 121 43714	820nF 5% 50V
2108	4822 121 51436	820nF 10% 63V
2111	4822 121 51231	820pF 1% 400V
2111	4822 126 13173	820pF 5% 50V
2112	4822 126 12788	33pF 5% 50V
2114	5322 122 32491	1nF 20% 100V
2115	5322 122 32491	1nF 20% 100V
2116	5322 122 32491	1nF 20% 100V
2117	5322 122 32491	1nF 20% 100V
2125	4822 126 12643	22nF 20% 50V
2132	4822 124 40248	10µF 20% 63V
2133	4822 126 12643	22nF 20% 50V
2140	5322 122 32311	470pF 10% 100V
2154	4822 126 12643	22nF 20% 50V
2160	5322 122 32491	1nF 20% 100V

-▭-

3101▲	4822 116 52269	3k3 5% 0.5W
3102	4822 116 52289	5k6 5% 0.5W
3103	4822 116 52289	5k6 5% 0.5W
3104	4822 116 52289	5k6 5% 0.5W
3105	4822 116 52289	5k6 5% 0.5W
3106	4822 116 52244	15k 5% 0.5W
3107	4822 116 52226	560Ω 5% 0.5W
3108	4822 116 52225	510Ω 5% 0.5W
3109	4822 116 52245	150k 5% 0.5W
3110	4822 116 52245	150k 5% 0.5W
3111	4822 116 52273	3k6 5% 0.5W
3112▲	4822 052 10129	12Ω 5% 0.33W
3114	4822 116 52233	10k 5% 0.5W
3115▲	4822 116 52256	2k2 5% 0.5W
3116▲	4822 116 52283	4k7 5% 0.5W
3117	4822 116 52226	560Ω 5% 0.5W
3118	4822 116 52292	560k 5% 0.5W
3120▲	4822 116 52269	3k3 5% 0.5W
3150▲	4822 116 52215	220Ω 5% 0.5W
3151	4822 116 52224	470Ω 5% 0.5W
3152▲	4822 116 52219	330Ω 5% 0.5W
3152	4822 116 52224	470Ω 5% 0.5W
3153▲	4822 116 52219	330Ω 5% 0.5W
3154	4822 116 52226	560Ω 5% 0.5W
3155	4822 116 52291	56k 5% 0.5W
3156	4822 116 52244	15k 5% 0.5W
3160	4822 116 52245	150k 5% 0.5W

∿

5105	4822 157 71039	120µH
5106	4822 157 71113	10µH 10%

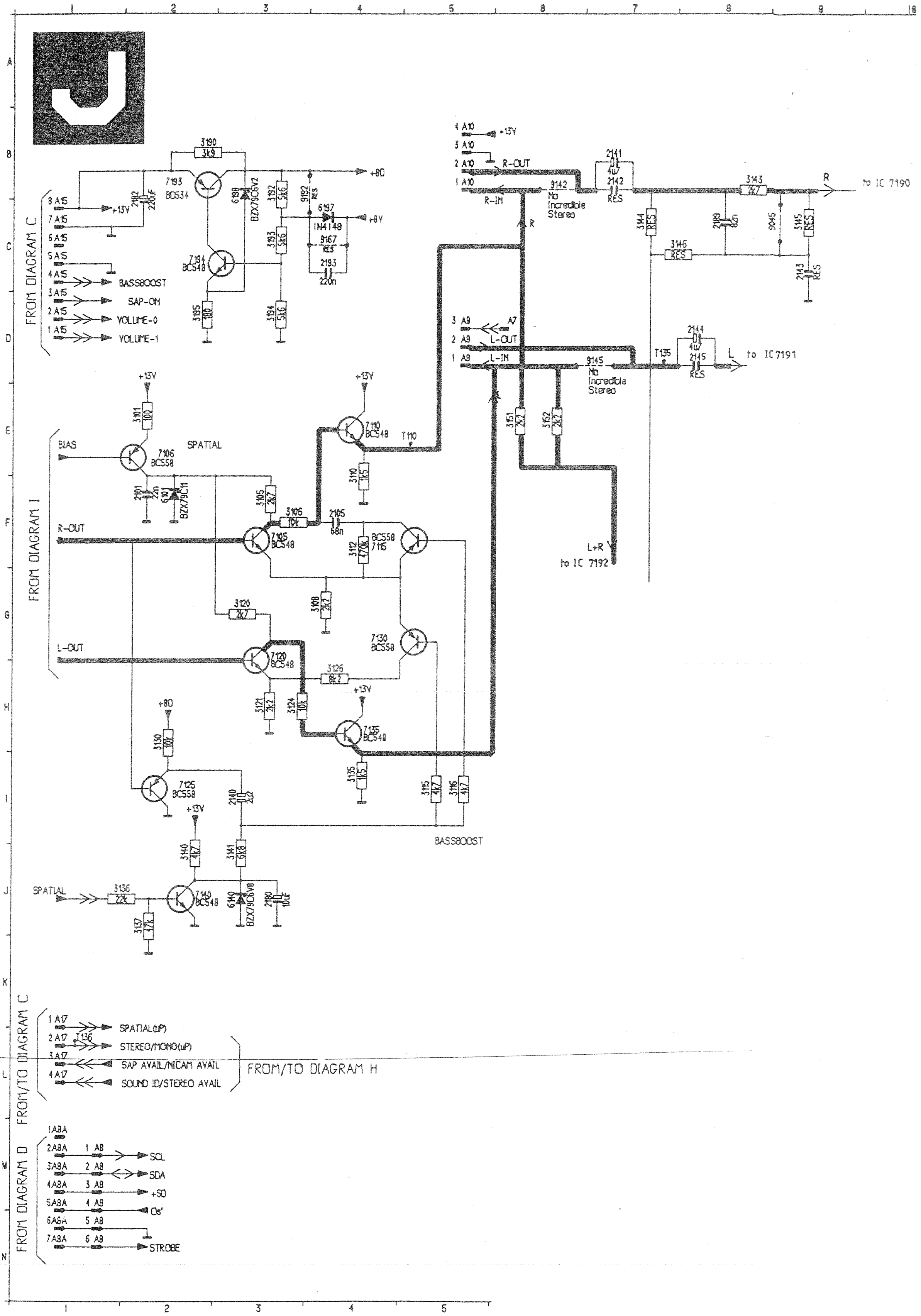
▶|

6101▲	4822 130 30621	1N4148
6102▲	4822 130 30621	1N4148
6103▲	4822 130 30621	1N4148
6104▲	4822 130 30621	1N4148
6106▲	5322 130 80617	BAT81
6107▲	5322 130 80617	BAT81
6124	4822 130 34233	BZX79-C5V1
6132	4822 130 34379	BZX79-C27
6133	4822 130 34379	BZX79-C27

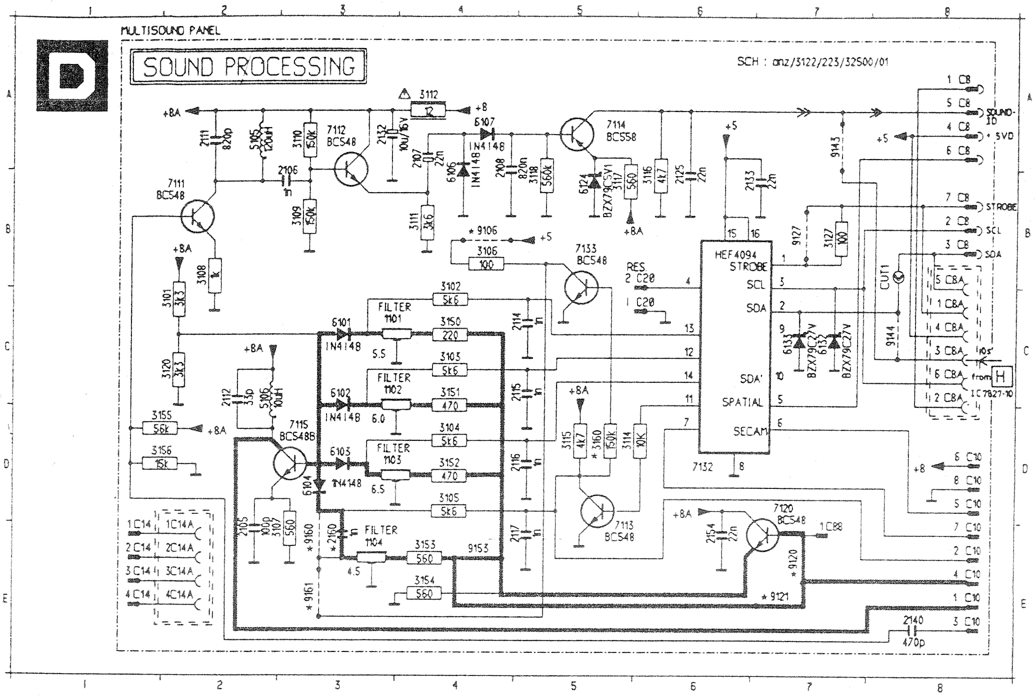
⊗ ▭

7111	4822 130 40937	BC548B
7112	4822 130 40938	BC548
7113	4822 130 40938	BC548
7114	4822 130 40941	BC558
7115	4822 130 40937	BC548B
7120	4822 130 40938	BC548
7132	5322 209 10421	HEF4094BP
7133	4822 130 44196	BC548C

Amplification part (Anubis S BB)

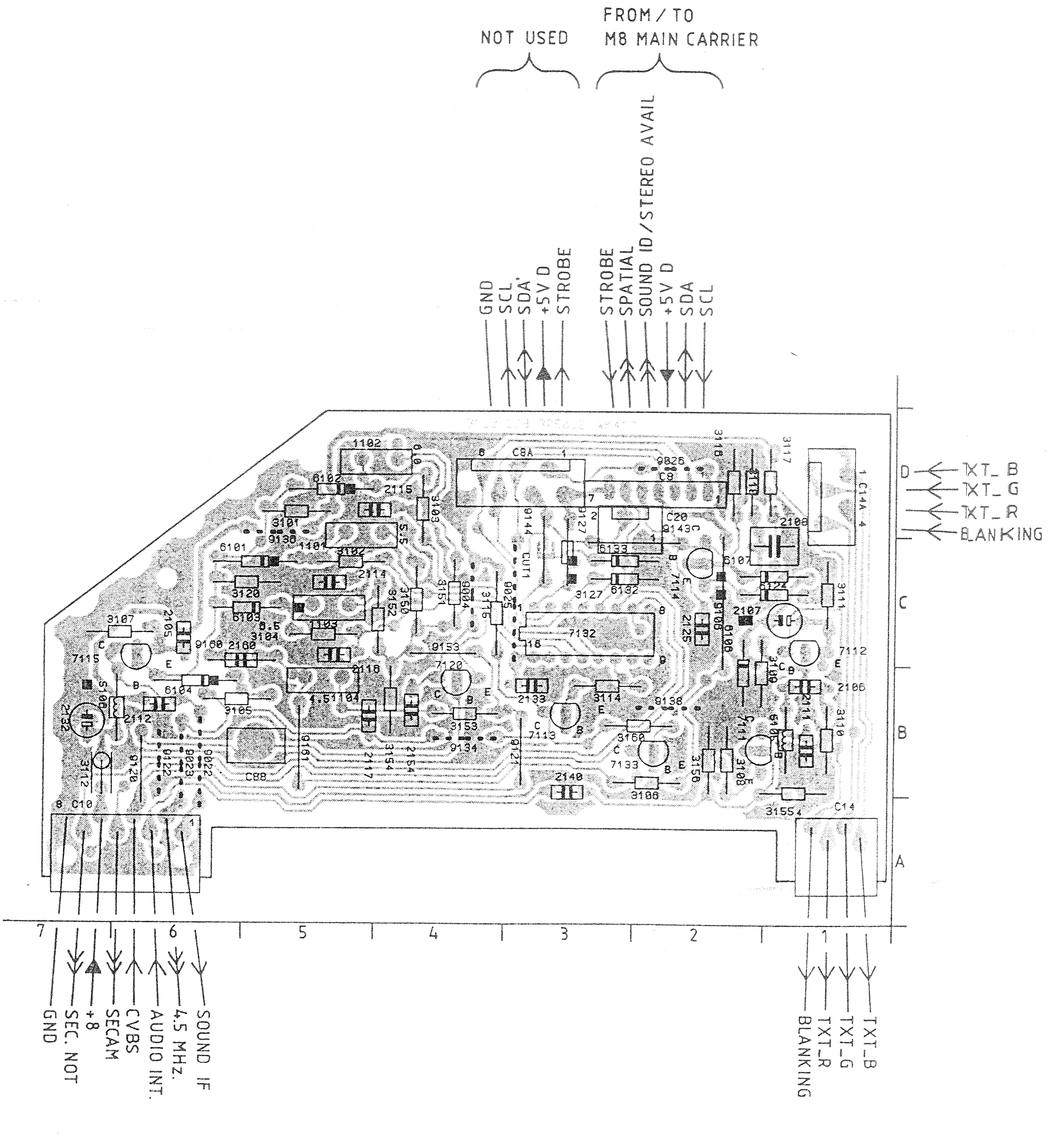

J
FROM DIAGRAM C
8 A15
7 A15
6 A15
5 A15
4 A15
3 A15
2 A15
1 A15
BASSBOOST
SAP-ON
VOLUME-0
VOLUME-1
3190 3k9
7193 BD534
2192 220uF
6198 BZX79C6V2
3192 5k6
9192 RES
6197 1N4148
9167 RES
2193 220n
3193 5k6
7194 BC548
3195 180
3194 5k6
+8D
+8V
+13V
4 A10
3 A10
2 A10
1 A10
R-OUT
R-IN
9142
No Incredible Stereo
2141 4u7
2142 RES
3143 2k7
R
to IC 7190
3144 RES
2189 82n
9045
3145 RES
3146 RES
2143 RES
3 A9
2 A9
1 A9
A7
L-OUT
L-IN
9145
No Incredible Stereo
T135
2144 4u7
2145 RES
L
to IC7191
3151 2k2
3152 2k2
L+R
to IC 7192
FROM DIAGRAM I
BIAS
SPATIAL
3101 100
7106 BC558
2101 22n
6101 BZX79C11
7110 BC548
T110
3110 1k5
3105 2k7
3106 10k
2105 68n
3112 470k
BC558 7115
R-OUT
7105 BC548
3108 2k2
3120 2k7
7130 BC558
L-OUT
7120 BC548
3126 8k2
3121 2k2
3124 10k
7135 BC548
3135 1k5
3115 4k7
3116 4k7
BASSBOOST
3130 10k
7125 BC558
2140 2u2
3140 4k7
3141 6k8
SPATIAL
3136 22k
3137 47k
7140 BC548
6140 BZX79C6V8
2180 10uF
FROM/TO DIAGRAM C
1 A17
2 A17
3 A17
4 A17
T136
SPATIAL(uP)
STEREO/MONO(uP)
SAP AVAIL/NICAM AVAIL
SOUND ID/STEREO AVAIL
FROM/TO DIAGRAM H
FROM DIAGRAM D
1A8A
2A8A
3A8A
4A8A
5A8A
6A8A
7A8A
1 A8
2 A8
3 A8
4 A8
5 A8
6 A8
SCL
SDA
+5D
Os'
STROBE

Multisound panel / Multi sonido (Anubis S BB)


D
MULTISOUND PANEL
SOUND PROCESSING
SCH : onz/3122/223/32500/01
+8A
+8
+5
3112
7112 BC548
7111 BC548
7114 BC558
7133 BC548
7115 BC548B
7113 BC548
7120 BC548
6107 1N4148
6106 1N4148
6124 BZX79C5V1
6101 1N4148
6102 1N4148
6105 1N4148
6132 BZX79C27V
6133 BZX79C27V
HEF4094
STROBE
SCL
SDA
SDA'
SPATIAL
SECAM
7132
RES
FILTER 1101
FILTER 1102
FILTER 1103
FILTER 1104
CUT1
IC7827-10
SOUND ID
5VD
STROBE
SCL
SDA
1 C8
5 C8
4 C8
6 C8
7 C8
2 C8
3 C8
5 C8A
1 C8A
4 C8A
3 C8A
6 C8A
2 C8A
6 C10
8 C10
5 C10
7 C10
2 C10
4 C10
1 C10
3 C10
1 C14
2 C14
3 C14
4 C14
1C14A
2C14A
3C14A
4C14A
2 C20
1 C20
1 C88
2140 470p

1101	C 3	7112	A 3
1102	C 3	7113	E 6
1103	D 3	7114	A 5
1104	E 3	7115	D 3
2105	E 2	7120	D 7
2106	B 3	7132	D 6
2107	A 4	7133	B 5
2108	A 4	9106	B 4
2111	A 2	9120	E 7
2112	C 2	9121	E 7
2114	C 5	9127	B 7
2115	C 5	9143	A 7
2116	D 5	9144	C 8
2117	E 5	9153	E 4
2125	B 6	9160	E 3
2132	A 3	9161	E 3
2133	B 6	C8	B 8
2140	E 8	C8	B 8
2154	E 6	C8	B 8
2160	E 3	C8	A 8
3101	C 2	C8	A 8
3102	C 4	C8	A 8
3103	C 4	C8	A 8
3104	D 4	C8A	C 8
3105	D 4	C8A	B 8
3106	B 4	C8A	C 8
3107	E 3	C8A	C 8
3108	B 2	C8A	C 8
3109	B 3	C8A	C 8
3110	A 3	C10	E 8
3111	B 4	C10	E 8
3112	A 4	C10	E 8
3114	D 5	C10	E 8
3115	D 5	C10	E 8
3116	B 6	C10	D 8
3117	B 5	C10	D 8
3118	B 5	C10	D 8
3120	C 2	C14	E 1
3127	B 7	C14	E 1
3150	C 4	C14	E 1
3151	C 4	C14	E 1
3152	D 4	C14A	E 2
3153	E 4	C14A	E 2
3154	E 4	C14A	E 2
3155	D 2	C14A	E 2
3156	D 2	C20	C 6
3160	D 5	C20	B 6
5105	A 2	C88	E 7
5106	C 2	CUT1	B 8
6101	C 3		
6102	C 3		
6103	D 3		
6104	D 3		
6106	B 4		
6107	A 4		
6124	B 5		
6132	C 7		
6133	C 7		
7111	B 2		

1101	D4	7133	B2
1102	D4	9004	C4
1103	C5	9022	B6
1104	C5	9023	B6
2105	C6	9025	C3
2106	C1	9026	D2
2107	C1	9106	C2
2108	D1	9120	B6
2111	D1	9121	B3
2112	B6	9122	B6
2114	C5	9127	D3
2115	D4	9134	B4
2116	C5	9136	D5
2117	B4	9138	B2
2125	C2	9143	D2
2132	B6	9144	D3
2133	C3	9153	C4
2140	B3	9160	C5
2154	B4	9161	B5
2160	C5	C8	D2
3101	D5	C8A	D3
3102	C4	C10	A6
3103	D4	C14	A1
3104	C5	C14A	D1
3105	B5	C20	D2
3106	B2	C88	B5
3107	C6		
3108	B2		
3109	C1		
3110	B1		
3111	C1		
3112	B6		
3114	C2		
3115	C3		
3116	D2		
3117	D1		
3118	D1		
3120	C5		
3127	D3		
3150	C4		
3151	C4		
3152	C4		
3153	B4		
3154	B4		
3155	B1		
3156	B2		
3160	B2		
5105	B1		
5106	B6		
6101	C5		
6102	D5		
6103	C5		
6104	C6		
6106	C1		
6107	C1		
6124	C1		
6132	C2		
6133	C2		
7111	B1		
7112	C1		
7113	B3		
7114	C2		
7115	C6		
7120	C4		
7132	C3		


NOT USED
FROM / TO
M8 MAIN CARRIER
GND
SCL
SDA'
+5V D
STROBE
STROBE
SPATIAL
SOUND ID / STEREO AVAIL
+5V D
SDA
SCL
TXT_ B
TXT_ G
TXT_ R
BLANKING
C8A
C8
C20
C10
C14
C14A
C88
7132
7133
7113
7120
7115
7111
7112
GND
SEC. NOT
+8
SECAM
CVBS
AUDIO INT.
4.5 MHz.
SOUND IF
BLANKING
TXT_R
TXT_G
TXT_B

Colour television

Service
Service
Service

Anubis S

BB 94.03

Service Information

25" Anubis S BB sets 110° picture tube (for -/93)
29" Anubis S BB (all versions)

In this service information all relevant adaptions are published for the -/93 25" Anubis S BB sets with 110° picture tube and all versions 29" Anubis S BB.
The following is published in this service information:
- Adapted PWB's for the main carrier and the mains input and power supply control panel for the 25" and the 29". Further a new PWB for the S-correction panel of the 25" 110°. The spare parts list of these panels and the adapted large signal diagram (diagram AA) is published.
- Adapted PWB for the new combined CRT panel for the 25" and 29" Anubis S BB. Also the spare parts list of this adapted CRT panel and the adapted diagram EE is given.
- A description of the 50/60 Hz identification circuitry for the 25" 110° Anubis S BB.
- A description of the dynamic S circuitry for the 25" 110° Anubis S BB.

Description of the 50/60 Hz identification circuitry for the 25" Anubis S BB 110° picture tube.

For 110° picture tubes used in 25" -/93 a 50/60 Hz identification circuitry is required as IC7225 does not have a 50/60 Hz identification pin. This 50/60 Hz identification circuitry is used for adapting the amount of E/W correction for the different pin-cushion effect for 50/60 Hz frames.

Operation:
HORZ_PULSE is a 15625 Hz pulse for 50 Hz frame, or a 15750 Hz pulse for 60 Hz frame. This HORZ_PULSE signal is coming from pin 26 of the µC OSD generator.
VERT_PULSE is a 50 Hz pulse for 50 Hz frame, or a 60 Hz pulse for 60 Hz frame. This VERT_PULSE signal is coming from pin 27 of the µC OSD generator. The collector of TS7734 is "high" in case the frame starts again.
Counter IC7730 is a HEF4040BP which counts the pulses at the CP (clock input) input pin 10 and gives a pulse at output pins after 2-4-8-16-32-64 etc pulses. The counting starts again when pin 11 MR (master reset) becomes "high".
In this application the horizontal pulses at the CP input pin 10 IC7730 are counted to a quantity of 272 pulses via output pins 3 and 12 (256 + 16 = 272; 256 pulses are counted at output pin 3, and 16 pulses are counted at output pin 12). The MR is connected to the VERT_PULSE, so IC7730 starts counting again at the beginning of a new 50 or 60 Hz frame.
Dual D-flip flop IC7731 is a HEF4013BP which clocks through the data at pin D (resp. 5 and 9) to the output pins (pin 1 positive output and pin 12 negative output) at the rising edge of the clock input CP (resp. pin 3 and 11) depending on the SD (set direct) and CD (clear direct) pins:
- When the set direct (SD) pins 6 and 8 are "high", the positive output pins are "high" and the negative output pins are "low" independent from the data at pin 5 resp 9 (only as long as the CD is "low").
  In this application this feature is not used as both pins 6 and 8 are shorted.
- When the clear direct (CD) pins 4 and 10 are "high", the positive output pins are "low" and the negative output pins are "high" independent from the data at pin 5 resp 9 (only as long as SD is "low").
  In this application this feature is only used for pin 4 IC7731/2A (and not for IC7731/2B as pin 10 is shorted).
- At the moment both the SD and CD are "high", this is a conflict status. In that case both the positive and the negative output will be made "high" independent from the data at pin 5 resp 9.
- Only in case both the SD and the CD are "low", the data at the data pins 5 and 9 can be clocked through to the positive and negative output pins.

So in this application:
- IC7731/2A is configured for clocking through the data at pin 5 to the positive output pin 1 at the rising edge of pin 3 only as long as pin 4 is "low".
- IC7731/2B is configured for clocking through the data at pin 9 to the negative output pin 12 at the rising edge of pin 11.

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At 50 Hz reception (see Fig. 1) each frame is 312.5 lines (15625 Hz for 50 frames), which is more then 272 pulses. On the moment the counter has passed 272 both output pins 3 and 12 of counter IC7730 are "high" and so TS7332 blocks. As a result the collector of TS7332 thus pin 3 IC7731/2A becomes "low". At the rising edge of pin 3 (at pulse 288), the data at pin 5 IC7332/2A (+5V) is clocked to the positive output pin 1 IC7731/2A (so making pin 1 "high") as long as pin 4 remains "low". So in case of 50 Hz reception output pin 1 is "high" from pulse 288 to the end of a frame because:
- pin 3 IC7731/2A is "low" from pulse 272 to 288, giving a rising edge at pulse 288 (pin 3 is also "low" from pulse 304 to 312 giving a rising edge at pulse 312, but this is not important as by then pin 5 is already clocked to pin 1).
- pin 4 IC7731/2A is always "low" until the voltage at pin 4 across the RC network 3734/2734 has become +5V at the end of the frame. On the moment pin 4 becomes +5V, IC7731/2A is resetted, enabling 50/60 Hz detection for every frame again and again.

The "high" output pin 1 IC7731/2A is fed to input pin 9 IC7731/2B and is inverted clocked through to pin 12 at the rising edge of pin 11 (making output pin 12 IC7731/2B "low").
As a result pin 12 IC7731/2B becomes "low" at the end of the frame when a 50 Hz frame is detected for the first time. After that pin 12 will remain "low" until a 60 Hz frame is counted.

At 60 Hz reception each frame is 262.5 lines (15750 Hz for 60 frames), which is less then 272 pulses. In that case both output pins 3 and 12 of counter IC7730 will never become "high" any more at the same time (also not at the end of the frame). As a result TS7332 always conducts and so the collector of TS7332 thus pin 3 IC7731/2A always remains "high".
The data at pin 5 IC7731/2A (+5V) is only "flip flopped" to output pin 1 IC7731/2A in case of a rising edge at pin 3 and as long as pin 4 is "low". As pin 3 is constantly "high", there will never be a rising edge, so in case of 60 Hz reception pin 1 IC7731/2A always remain "low", so pin 12 IC7731/2B always remain "high" (also at the end of a frame).

For 50 Hz pin 12 IC7731/2B is "low", so TS7733 is not conducting. This results in a less modified E/W modulation.
For 60 Hz pin 12 is always "high", so TS7733 conducts constantly, shorting R3474 in the E/W modulator. This modifies the E/W modulation by changing the current.

Description of the dynamic S circuitry for the 25" Anubis S BB 110° picture tube.

This separate panel is only needed for the 25" Anubis S BB sets with 110° picture tube. This panel is used for reducing the pin-cushion effect within the picture content (every line) (this can not be realised via the E/W modulator as these modulator takes care of the outline of each frame).

The dynamic S panel consists of the S-correction capacitor C2490 and an auto-transformer. The panel is inserted at the position and instead of jumper 9455. For every line (50 or 60 Hz) a dynamic S correction is modulated on the horizontal deflection to achieve a good linear horizontal scan.

Finally, to correct the 4 corners from bending inwards D6471 and 6473 with R3471 and 3473 are added (only for 25" Anubis S BB 110° picture tube). This circuit is called the higher order S-correction circuitry.

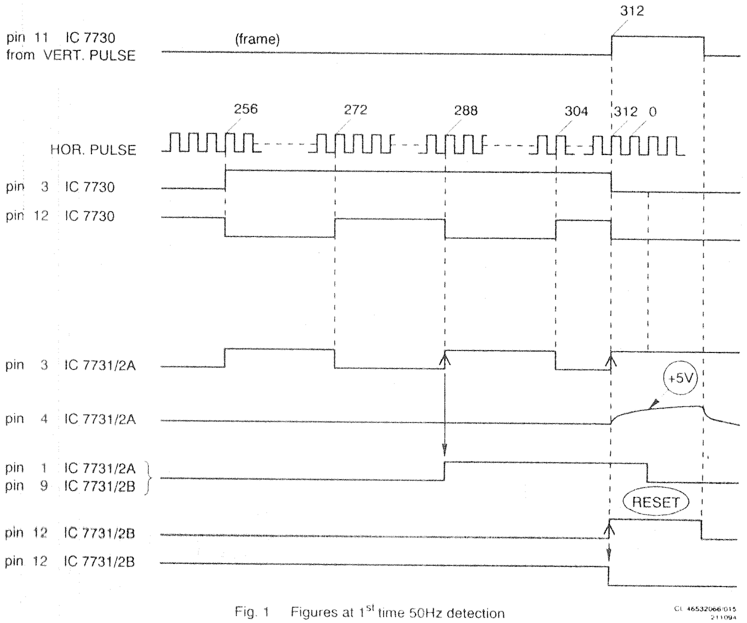
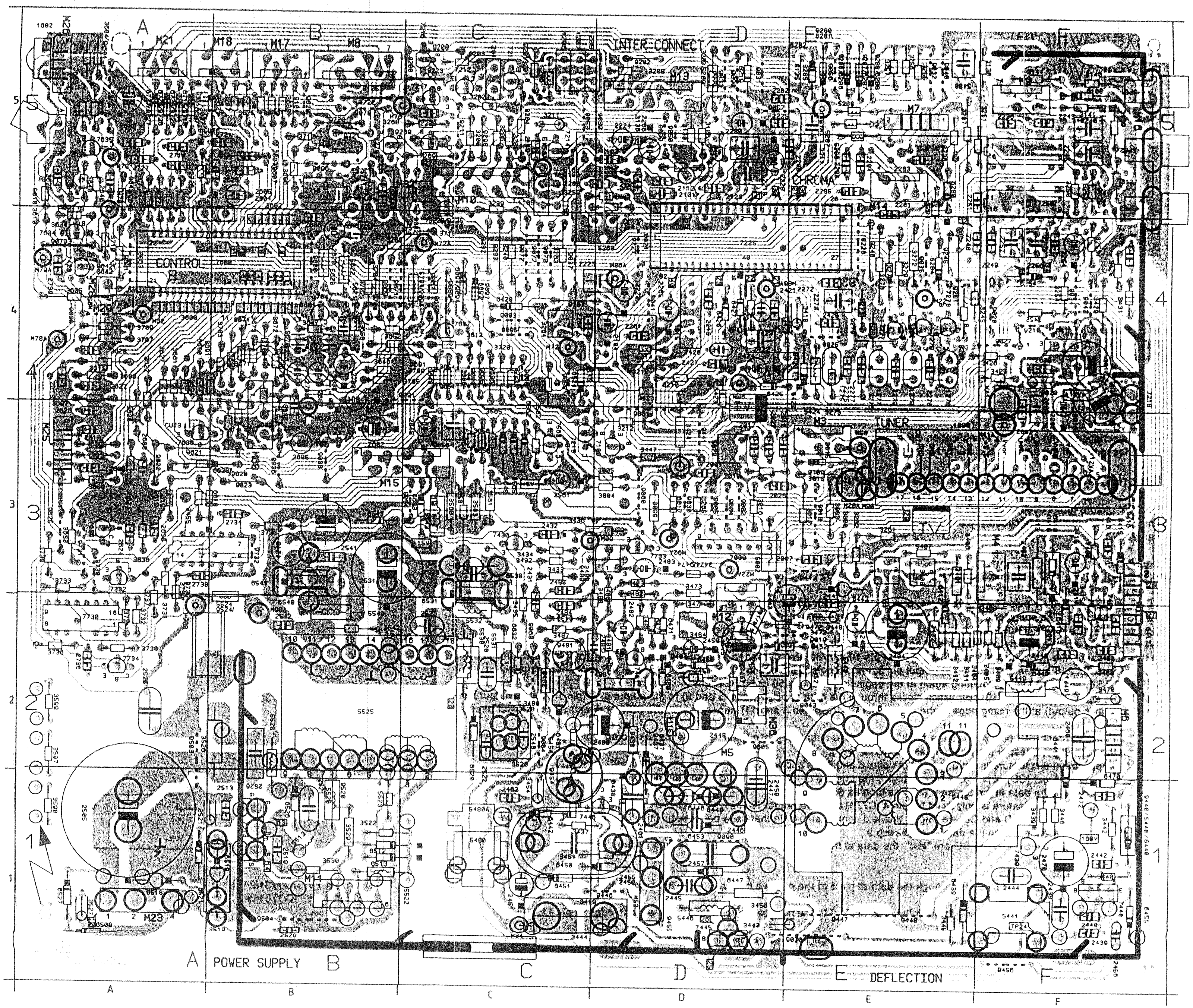


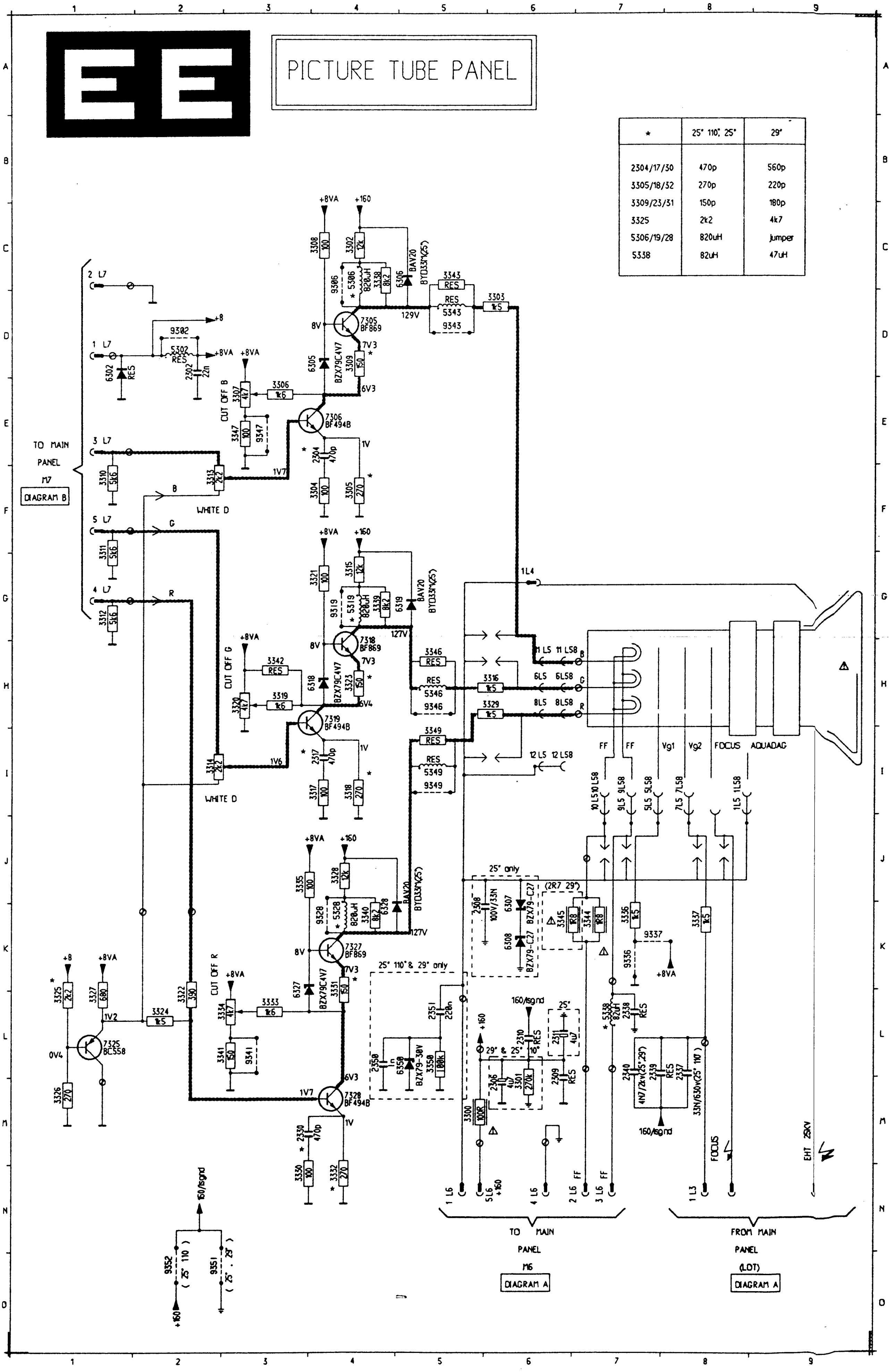
Fig. 1 Figures at 1st time 50Hz detection

Main carrier 25" and 29" Anubis S BB (Copper side)

1000	F3	2523	C2	3409	F2	3695	B3	6541	B3	9211	C5
1015	D4	2525	A2	3410	E3	3696	B5	6543	B3	9219	F4
1105	C5	2526	B2	3411	E2	3697	A4	6562	C3	9225	C5
1106	C5	2529	B1	3412	E2	3698	A4	6565	C3	9226	E4
1204	C5	2530	C3	3413	F3	3699	B4	6605	A5	9227	D4
1206	C5	2531	B3	3414	F2	3700	B4	6606	B5	9245	E4
1207	C5	2540	B3	3415	F2	3702	B4	6607	A5	9248	E4
1208	C5	2541	B3	3416	F3	3703	B4	6618	A3	9269	C5
1275	E4	2542	B2	3418	E4	3704	B4	6619	A3	9279	E4
1277	E4	2548	C2	3419	C1	3705	B4	6620	A3	9280	E5
1278	E4	2561	C3	3420	D4	3706	B4	6632	C2	9281	E4
1279	E4	2603	A5	3421	D4	3707	A4	6633	C3	9282	C4
1449	F2	2604	B5	3422	D4	3708	B4	6648	C3	9283	C4
1540	B3	2605	B5	3423	D4	3709	A4	6690	A4	9286	E5
1602	A5	2606	B4	3424	D3	3710	A4	6694	C4	9287	E5
1630	A4	2607	B5	3425	F4	3713	C4	6697	C4	9288	E5
2001	D3	2608	A3	3426	F4	3715	A5	6715	A5	9298	C5
2002	F4	2610	A3	3427	F4	3717	B5	6726	A5	9416	F3
2007	E3	2615	A4	3428	F4	3718	B5	6727	A5	9437	D2
2008	F4	2620	B4	3429	F4	3719	B4	6728	A5	9440	F1
2009	F4	2621	B4	3430	C2	3720	C4	7000	D3	9441	D3
2010	F4	2624	A3	3431	F4	3721	C4	7109	D3	9443	E3
2011	F4	2625	B5	3432	C3	3726	A5	7212	C5	9446	D1
2016	D3	2626	A3	3433	C3	3727	A5	7213	C5	9447	E1
2017	D3	2627	A4	3434	C3	3728	A5	7214	C5	9448	E1
2026	D3	2628	A4	3435	C2	3730	A3	7215	C3	9454	C2
2027	D3	2636	A3	3436	D3	3731	A2	7216	C5	9455	D1
2101	D5	2638	A5	3437	C1	3732	A2	7217	C5	9456	F1
2102	D5	2640	A5	3438	D2	3733	A3	7218	F4	9472	D2
2103	D5	2648	C3	3439	F1	3734	A3	7219	F4	9474	D3
2104	D4	2656	C3	3440	F1	3735	B3	7225	D4	9481	C2
2112	D5	2682	B3	3442	F1	3736	A2	7240	C5	9482	C2
2119	C5	2683	A3	3443	D1	3737	A2	7245	F5	9484	D2
2123	D5	2685	B3	3444	C1	3738	A2	7255	F5	9489	D3
2138	E5	2687	B4	3445	E1	3739	A3	7269	C5	9503	A2
2200	C5	2688	B3	3446	F1	5002	D3	7270	B5	9504	B1
2208	D5	2692	B4	3447	D3	5014	D4	7277	E4	9520	B1
2212	E5	2695	B3	3448	E2	5020	D3	7278	E4	9524	B2
2213	D4	2700	B4	3451	D1	5100	D5	7279	E4	9600	B4
2219	D5	2703	B4	3452	E2	5112	D5	7332	A3	9601	A4
2220	D5	2711	B5	3454	C2	5206	C5	7400	F2	9604	A5
2221	D5	2714	A5	3455	A3	5209	D5	7423	A4	9605	D2
2222	D4	2721	B5	3456	D1	5260	D4	7430	C3	9607	B5
2223	C4	2722	A5	3457	D2	5286	E5	7439	F1	9610	A5
2224	D5	2726	A5	3458	D2	5287	E5	7440	F1	9612	C4
2225	D5	2727	A5	3460	F2	5288	E5	7445	D1	9619	A3
2228	D5	2728	A5	3470	F2	5424	E4	7448	D1	9620	A3
2238	F5	2734	B3	3471	D2	5440	F1	7480	D2	9621	A3
2243	F5	2736	A2	3472	D2	5441	F1	7481	D2	9622	A3
2245	F5	2738	A3	3473	D3	5443	E2	7513	B1	9623	B3
2246	F5	2739	A4	3474	D3	5445	E2	7563	C3	9625	A3
2248	E4	3000	E3	3480	C2	5446	D1	7600	B4	9628	B5
2249	F4	3003	E3	3481	D2	5449	F2	7634	A4	9638	A4
2251	E5	3004	D3	3482	D3	5454	C2	7635	A5	9642	A4
2253	F4	3005	D3	3483	D3	5480	C1	7636	A3	9643	A5
2254	F4	3010	F4	3484	D2	5481	C2	7637	C4	9654	C4
2256	F4	3016	D3	3485	D2	5513	B1	7638	A3	9656	C3
2257	F4	3017	E3	3486	D3	5520	B1	7647	B4	9670	B4
2260	C5	3018	E3	3487	C2	5522	B1	7710	B5	9671	B4
2261	D4	3019	D3	3488	C2	5523	B1	7730	A2	9691	B4
2262	F4	3020	F4	3489	D3	5524	B2	7731	A3	9694	C4
2264	C4	3099	D3	3519	B1	5525	B2	7733	D3	9695	C4
2265	D4	3106	D5	3520	C2	5528	B2	7734	A2	9696	C4
2266	D5	3113	C4	3521	A1	5529	C2	9002	D3	9697	C4
2272	E4	3128	C4	3522	B1	5530	C2	9004	D3	9704	B4
2273	E4	3130	D5	3525	A2	5531	C2	9005	D3	9715	A5
2275	E4	3136	D5	3526	B2	5532	C2	9015	E3	9720	B5
2277	E4	3137	F5	3527	A1	5540	B2	9018	E3	9721	B5
2278	E4	3138	E5	3528	C2	5543	C3	9019	D2	9722	B5
2279	E4	3139	F5	3529	B1	5620	B4	9020	F4	9723	C5
2280	E5	3140	F5	3530	B1	5621	B4	9024	A5	9726	A5
2281	E5	3141	F5	3542	B2	5622	B4	9025	E4	9727	A5
2282	D5	3144	F5	3560	C3	5711	B5	9027	F4	9728	A5
2283	E5	3200	C5	3561	C3	5720	A5	9029	F5	9730	A3
2284	E5	3201	C5	3562	C3	5794	C4	9030	D3	9731	A3
2285	E5	3202	C5	3563	C3	6016	E3	9031	D5	9732	B3
2401	F2	3203	C5	3565	C3	6017	D3	9032	E5	9739	A3
2402	F3	3204	C5	3597	A2	6108	F5	9033	D5	M3	E3
2403	F2	3205	C5	3598	A1	6219	D5	9034	F4	M4	F3
2404	E2	3206	C5	3599	A2	6254	F4	9035	E4	M5	D2
2405	E2	3207	E5	3600	A4	6280	E5	9036	B3	M6	F2
2414	F2	3208	D5	3601	B4	6281	E5	9037	C4	M7	E5
2415	F3	3209	D5	3602	B4	6282	E5	9038	B3	M8	B5
2416	F3	3210	D4	3603	A5	6284	E4	9039	C5	M9	F5
2421	D4	3211	C5	3604	A5	6286	E5	9040	E5	M10	C5
2422	D4	3212	D3	3605	A4	6287	E5	9041	D4	M11	B1
2423	D4	3213	D4	3606	C4	6288	E5	9042	F4	M12	D3
2424	D4	3214	D5	3607	A5	6412	E2	9043	E2	M13	D5
2425	E4	3225	C5	3608	A3	6415	F3	9050	D5	M14	E5
2426	D4	3236	E5	3609	A3	6416	F2	9053	C5	M15	B3
2427	D4	3239	C5	3610	A5	6417	F2	9054	C3	M16	F5
2428	F4	3240	C4	3611	A4	6418	F3	9056	E5	M17	B5
2431	C2	3245	E4	3612	C4	6420	E4	9057	D5	M18	B5
2432	C3	3250	F5	3617	A3	6423	D4	9058	C4	M20A	E3
2438	F1	3251	E5	3622	A4	6425	D4	9060	D3	M21	A5
2439	F1	3252	F5	3625	B5	6426	D4	9061	D3	M22	E4
2440	F1	3253	F4	3626	A3	6427	D4	9062	B5	M22A	D3
2441	E2	3254	F4	3627	A4	6428	C4	9064	C2	M23	A1
2442	F1	3255	E5	3633	A3	6437	D2	9065	B5	M25	A3
2443	D3	3256	E5	3634	A4	6438	D1	9066	C4	M26	A5
2444	F1	3257	E5	3635	A5	6439	E1	9067	C4	M28	A4
2445	D1	3259	D5	3636	A3	6440	F1	9068	C2	M29	A4
2446	D1	3260	D5	3637	A5	6441	F2	9069	B4	M31	B5
2447	D2	3261	E3	3638	A5	6442	C1	9070	E1	M32	C5
2448	D2	3262	E3	3640	A5	6443	E3	9071	B4	M36	D2
2449	F2	3263	C4	3641	A5	6446	D1	9072	C4	M41A	F3
2450	C1	3264	C4	3642	A4	6447	D1	9073	C4	M41	F4
2451	C1	3265	D3	3643	A5	6448	D1	9077	C4	M50A	C5
2452	D2	3267	B5	3645	B3	6449	F2	9078	B5	M50	E3
2453	F2	3268	C5	3646	B4	6450	D1	9079	A4	M52	D1
2454	D2	3270	C5	3647	B4	6451	C1	9080	C4	M60	B3
2455	C1	3271	B5	3648	C4	6452	D2	9082	C5	M62	A4
2456	F1	3272	E4	3649	C3	6453	D1	9088	B4	M62A	B3
2457	D1	3273	E4	3650	C3	6455	F1	9089	C4	M72A	C4
2458	D2	3275	E4	3652	B4	6458	D2	9090	D5	M72	C4
2459	D2	3276	E4	3653	B4	6470	F2	9091	B4	M76	B5
2460	F2	3277	E4	3654	C4	6471	D2	9093	C4	M76A	E5
2461	D1	3278	E4	3656	C3	6473	D2	9094	C4	M78	A4
2462	C1	3279	E4	3661	A4	6480	D2	9095	C4	M78A	A4
2470	F1	3280	E4	3662	A3	6481	C2	9096	B5	M79	A5
2472	F2	3281	E4	3670	B4	6508	A1	9097	B4	M84	C1
2480	D2	3282	E4	3671	B4	6512	B1	9098	D1	M85	D3
2481	C2	3284	E5	3672	B4	6513	B1	9099	D5	M86A	D4
2482	D2	3285	E5	3673	B4	6518	A1	9100	D5	M86	D4
2483	D3	3400	F3	3685	B3	6519	B1	9104	B5	M89	C3
2484	C2	3401	E3	3687	B4	6520	C2	9105	B5	M89A	D4
2485	C3	3402	E2	3688	B5	6521	A1	9106	B5	M90B	A2
2505	A1	3403	F2	3689	B5	6524	C4	9107	C4	M90A	B2
2513	B1	3404	E2	3690	B5	6526	B1	9135	E5	M90	E3
2519	B1	3405	F2	3691	A4	6527	A1	9200	B5	M92A	D3
2520	C2	3406	E3	3692	B4	6530	C3	9201	C5	M92	D5
2521	B1	3407	E3	3693	B3	6531	C3	9202	D5		
2522	C2	3408	E3	3694	A4	6540	B3	9208	C5		



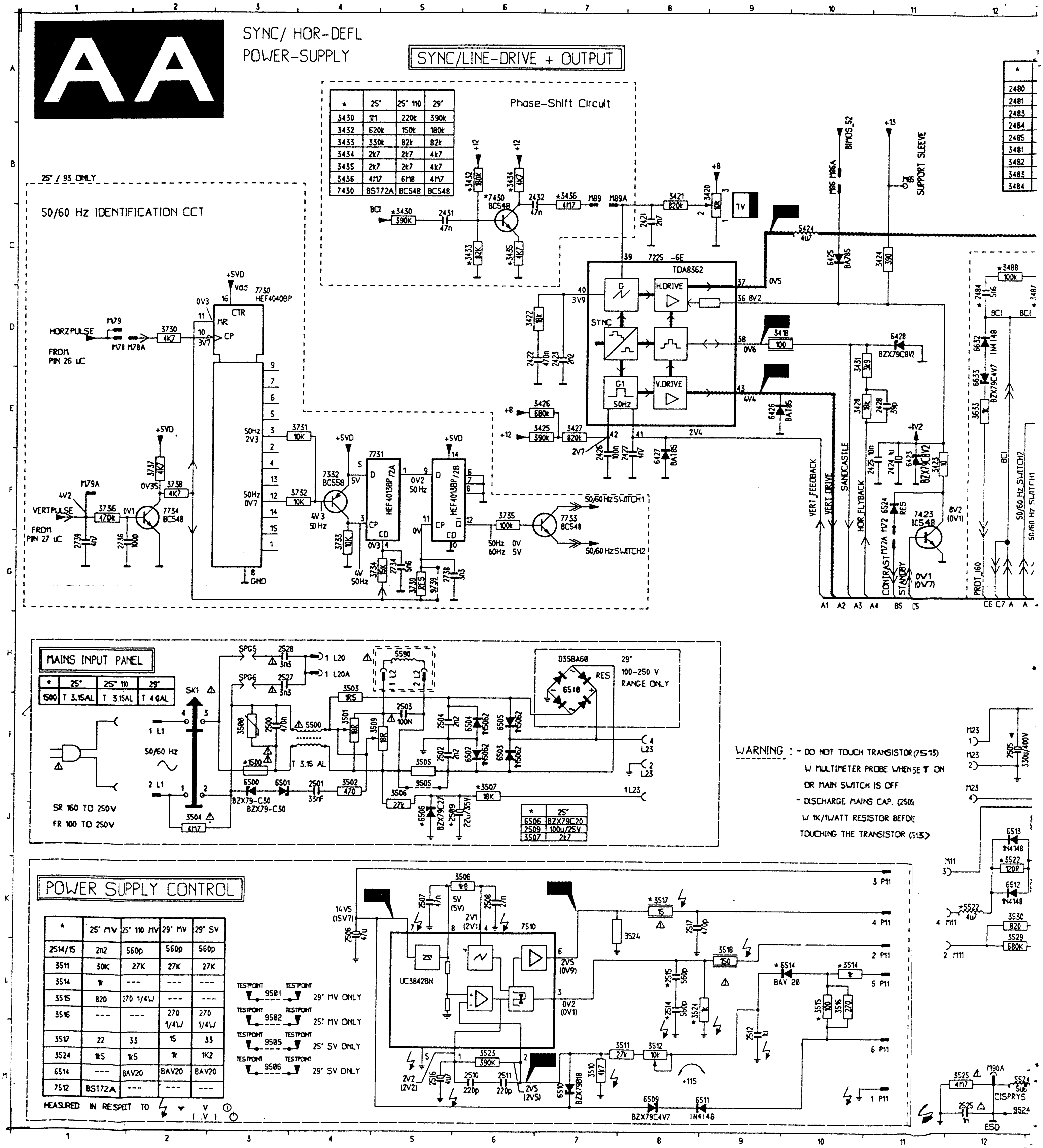
CRT panel 25" and 29"

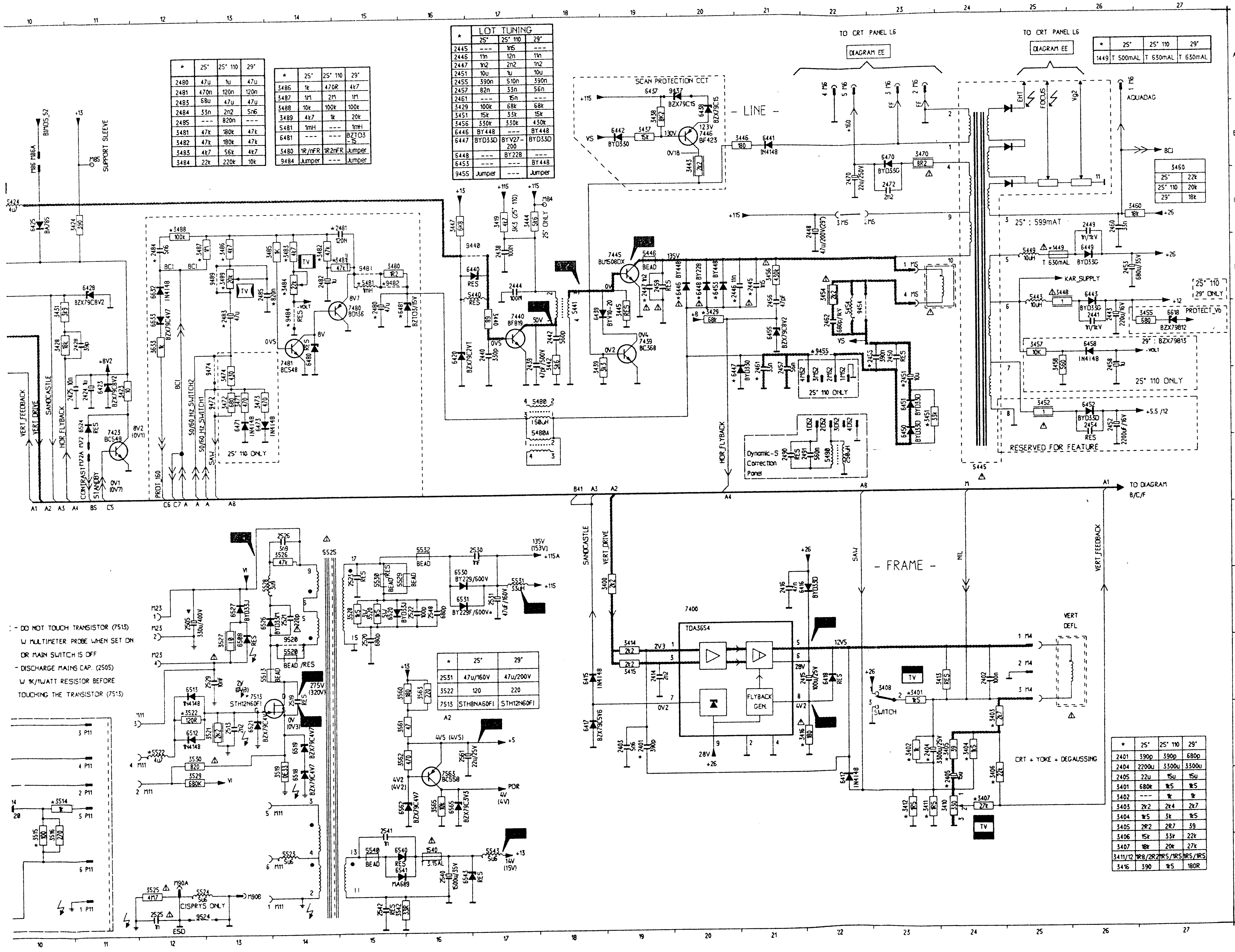

E E
PICTURE TUBE PANEL
TO MAIN PANEL M7 DIAGRAM B
2 L7
1 L7
3 L7
5 L7
4 L7
9302
5302 RES
2302 22n
6302 RES
+8
+8VA
CUT OFF B
CUT OFF G
CUT OFF R
WHITE D
B
G
R
3310 5k6
3311 5k6
3312 5k6
3313 2k2
3314 2k2
3307 4k7
3306 1k6
3347 100
9347
2304 470p
3304 100
3305 270
3308 100
3302 12k
+160
9306
5306 820uH
3338 8k2
6306 BAV20
BYD33M(25")
7305 BF869
7306 BF494B
6305 BZX79C4V7
3309 150
8V
7V3
6V3
1V7
1V
129V
3343 RES
5343 RES
9343
3303 1k5
3321 100
3315 12k
9319
5319 820uH
3339 8k2
6319 BAV20
BYD33M(25")
7318 BF869
7319 BF494B
6318 BZX79C4V7
3323 150
3342 RES
3320 4k7
3319 1k6
2317 470p
3317 100
3318 270
127V
6V4
1V6
3346 RES
5346 RES
9346
3316 1k5
3329 1k5
3349 RES
5349 RES
9349
3335 100
3328 12k
9328
5328 820uH
3340 8k2
6328 BAV20
BYD33M(25")
7327 BF869
7328 BF494B
6327 BZX79C4V7
3331 150
3334 4k7
3333 1k6
3341 150
9341
2330 470p
3330 100
3332 270
3325 2k2
3327 680
3324 1k5
3322 390
7325 BC558
3326 270
1V2
0V4
1L4
11 LS 11 LS8
6LS 6LS8
8LS 8LS8
12 LS 12 LS8
10 LS 10 LS8
9LS 9LS8
5LS 5LS8
7LS 7LS8
1LS 1LS8
FF
Vg1
Vg2
FOCUS
AQUADAG
25" only
2308 100V/33N
6307 BZX79-C27
6308 BZX79-C27
(2R7 29")
3345 1R8
3344 1R8
3336 1k5
9337
9336
3337 1k5
25" 110° & 29" only
2351 220n
2350 1n
6350 BZX79-30V
3350 100k
160/sgnd
29" & 25" 10°
2310 RES
2311 4u7
25"
2306 4u7
3301 270k
2309 RES
3300 100R
5338 82uH
2338 RES
2340 4N7/2kV(25",29")
2339 RES
2337 33N/630V(25" 110°)
FOCUS
EHT 25KV
1 L6
5 L6 +160
4 L6
2 L6 FF
3 L6 FF
1 L3
TO MAIN PANEL M6 DIAGRAM A
FROM MAIN PANEL (LOT) DIAGRAM A
9352 (25" 110)
9351 (25", 29")
+160
160/sgnd
1 2 3 4 5 6 7 8 9
A B C D E F G H I J K L M N O

*	25" 110", 25"	29"
2304/17/30	470p	560p
3305/18/32	270p	220p
3309/23/31	150p	180p
3325	2k2	4k7
5306/19/28	820uH	Jumper
5338	82uH	47uH

2302	D 2
2304	E 4
2306	M 6
2308	K 5
2309	L 6
2310	L 6
2311	L 6
2317	I 4
2330	M 3
2337	L 8
2338	L 7
2339	L 7
2340	L 7
2350	L 4
2351	L 5
3300	M 5
3301	M 6
3302	C 4
3303	D 6
3304	F 4
3305	F 4
3306	E 3
3307	E 3
3308	C 4
3309	D 4
3310	F 1
3311	F 1
3312	G 1
3313	F 2
3314	I 2
3315	G 4
3316	H 6
3317	I 4
3318	I 4
3319	H 3
3320	H 3
3321	G 4
3322	L 2
3323	H 4
3324	L 2
3325	L 1
3326	M 1
3327	L 1
3328	J 4
3329	H 6
3330	N 3
3331	K 4
3332	N 4
3333	L 3
3334	L 3
3335	J 3
3336	K 7
3337	K 8
3338	C 4
3339	G 4
3340	K 4
3341	L 3
3342	H 3
3343	C 5
3344	K 7
3345	K 6
3346	H 5
3347	E 3
3349	I 5
3350	L 5
5302	D 2
5306	C 4
5319	G 4
5328	K 4
5338	L 7
5343	D 5
5346	H 5
5349	I 5
6302	D 1
6305	D 3
6306	C 4
6307	K 6
6308	K 6
6318	H 3
6319	G 4
6327	K 3
6328	K 4
6350	L 5
7305	D 4
7306	E 4
7318	H 4
7319	H 4
7325	L 1
7327	K 4
7328	M 4
9302	D 2
9306	C 4
9319	G 4
9328	K 4
9336	K 7
9337	K 7
9341	L 3
9343	D 5
9346	H 5
9347	E 3
9349	I 5
9351	O 2
9352	O 2
L3	N 8
L4	G 6
L5	I 8
L5	I 7
L5	H 6
L5	I 8
L5	H 6
L5	I 7
L5	I 7
L5	H 6
L5	I 6
LS8	I 8
LS8	I 7
LS8	H 6
LS8	I 8
LS8	H 6
LS8	I 7
LS8	I 7
LS8	H 6
LS8	I 6
L6	N 5
L6	N 7
L6	N 7
L6	N 6
L6	N 6
L7	D 1
L7	C 1
L7	E 1
L7	G 1
L7	F 1

Power supply + Synchronisation + Deflection


AA
SYNC/ HOR-DEFL
POWER-SUPPLY
SYNC/LINE-DRIVE + OUTPUT
Phase-Shift Circuit
* | 25" | 25" 110 | 29"
3430 | 1M | 220k | 390k
3432 | 620k | 150k | 180k
3433 | 330k | 82k | 82k
3434 | 2k7 | 2k7 | 4k7
3435 | 2k7 | 2k7 | 4k7
3436 | 4M7 | 6M8 | 4M7
7430 | BST72A | BC548 | BC548
25" / 93 ONLY
50/60 Hz IDENTIFICATION CCT
HORZ PULSE FROM PIN 26 uC
VERTPULSE FROM PIN 27 uC
HEF4040BP
HEF4013BP/2A
HEF4013BP/2B
50/60HzSWITCH1
50/60HzSWITCH2
TDA8362
H.DRIVE
V.DRIVE
SYNC
50Hz
VERT FEEDBACK
VERT DRIVE
SANDCASTLE
HOR FLYBACK
CONTRAST
STANDBY
PROT_160
SUPPORT SLEEVE
BIMOS_52
MAINS INPUT PANEL
* | 25" | 25" 110 | 29"
1500 | T 3.15AL | T 3.15AL | T 4.0AL
SR 160 TO 250V
FR 100 TO 250V
D3SBA60
29" 100-250 V RANGE ONLY
WARNING : - DO NOT TOUCH TRANSISTOR (7513) W MULTIMETER PROBE WHEN SET ON OR MAIN SWITCH IS OFF
- DISCHARGE MAINS CAP. (2505) W 1K/1WATT RESISTOR BEFORE TOUCHING THE TRANSISTOR (7513)
* | 25"
6506 | BZX79C20
2509 | 100u/25V
3507 | 2k7
POWER SUPPLY CONTROL
* | 25" MV | 25" 110 MV | 29" MV | 29" SV
2514/15 | 2n2 | 560p | 560p | 560p
3511 | 30K | 27K | 27K | 27K
3514 | 1k | --- | --- | ---
3515 | 820 | 270 1/4W | --- | ---
3516 | --- | --- | 270 1/4W | 270 1/4W
3517 | 22 | 33 | 15 | 33
3524 | 1k5 | 1k5 | 1k | 1K2
6514 | --- | BAV20 | BAV20 | BAV20
7512 | BST72A | --- | --- | ---
MEASURED IN RESPECT TO
TESTPOINT 9501 TESTPOINT 29" MV ONLY
TESTPOINT 9502 TESTPOINT 25" MV ONLY
TESTPOINT 9505 TESTPOINT 25" SV ONLY
TESTPOINT 9506 TESTPOINT 29" SV ONLY
UC3842BN
CISPRYS



- DO NOT TOUCH TRANSISTOR (7513) W MULTIMETER PROBE WHEN SET ON OR MAIN SWITCH IS OFF
- DISCHARGE MAINS CAP. (2505) W 1K/1WATT RESISTOR BEFORE TOUCHING THE TRANSISTOR (7513)

*	25"	25" 110	29"
2480	47u	1u	47u
2481	470n	120n	120n
2483	68u	47u	47u
2484	33n	2n2	5n6
2485	---	820n	---
3481	47k	180k	47k
3482	47k	180k	47k
3483	4k7	56k	4k7
3484	22k	220k	10k

*	25"	25" 110	29"
3486	1k	470R	4k7
3487	1M	2M	1M
3488	10k	100k	100k
3489	4k7	1k	20k
5481	1mH	---	1mH
6481	---	---	BZT03 -15
3480	1R/nFR	1R2nFR	Jumper
9484	Jumper	---	Jumper

*	LOT TUNING		
	25"	25" 110	29"
2445	---	1n5	---
2446	11n	12n	11n
2447	1n2	2n2	1n2
2451	10u	1u	10u
2455	390n	510n	390n
2457	82n	33n	56n
2461	---	15n	---
3429	100k	68k	68k
3451	15k	33k	15k
3456	330k	330k	430k
6446	BY448	---	BY448
6447	BYD33D	BYV27-200	BYD33D
6448	---	BY228	---
6453	---	---	BY448
9455	Jumper	---	Jumper

*	25"	25" 110	29"
1449	T 500mAL	T 630mAL	T 630mAL

3460	
25"	22k
25" 110	20k
29"	18k

*	25"	29"
2531	47u/160V	47u/200V
3522	120	220
7513	STH8NA60FI	STH12N60FI

*	25"	25" 110	29"
2401	390p	390p	680p
2404	2200u	3300u	3300u
2405	22u	15u	15u
3401	680k	1k5	1k5
3402	---	1k	1k
3403	2k2	2k4	2k7
3404	1k5	3k	1k5
3405	2R2	2R7	39
3406	15k	33k	22k
3407	18k	20k	27k
3411/12	1R8/2R2	1R5/1R5	1R5/1R5
3416	390	1k5	180R

1449	D25
1500	I 3
1540	M16
2401	K19
2402	J24
2403	K19
2404	K23
2405	L24
2414	J19
2415	J21
2416	I21
2421	C 8
2422	D 6
2423	D 7
2424	F11
2425	F11
2426	F 7
2427	F 8
2428	E11
2431	C 5
2432	B 6
2438	D17
2439	E17
2440	E17
2441	E26
2442	E18
2443	E26
2444	D17
2445	D21
2446	D20
2447	D19
2448	C22
2449	C26
2450	E23
2451	F23
2452	F26
2453	D26
2454	F26
2455	E23
2456	D21
2457	E21
2458	E26
2459	D19
2460	C26
2461	E21
2462	E22
2470	C22
2472	C23
2480	D15
2481	C15
2482	D14
2483	E13
2484	D12
2485	D13
2490	G21
2491	G22
2500	I 3
2501	J 4
2502	I 5
2503	I 5
2504	I 5
2505	I12
2506	K 4
2507	K 5
2508	K 6
2509	J 5
2510	M 6
2511	M 6
2512	M 9
2513	K13
2514	L 8
2515	L 8
2516	M 5
2517	K 8
2519	J14
2520	I15
2521	I14
2522	I16
2523	I15
2525	M12
2526	H14
2527	H 3
2528	H 3
2529	J13
2530	H17
2531	I17
2540	M16
2541	L15
2542	M15
2548	I16
2561	K16
2734	G 5
2736	G 1
2738	G 5
2739	G 1
3400	I19
3401	J23
3402	K23
3403	K24
3404	K24
3405	K24
3406	L24
3407	L24
3408	J23
3410	L24
3411	L23
3412	L23
3413	J24
3414	J19
3415	J19
3416	K21
3418	D 9
3419	C17
3420	B 9
3421	B 8
3422	D 6
3423	F11
3424	C11
3425	E 7
3426	E 7
3427	E 7
3428	E10
3429	E20
3430	C 5
3431	D10
3432	B 6
3433	C 6
3434	B 6
3435	C 6
3436	B 7
3437	B19
3438	B19
3439	E18
3440	E17
3442	E18
3443	B20
3444	C17
3445	E19
3446	B21
3447	C16
3448	D25
3451	F23
3452	F25
3454	D22
3455	E27
3456	D21
3457	E25
3458	E25
3460	C27
3470	B23
3471	F13
3472	F13
3473	F13
3474	E13
3480	D15
3481	D15
3482	D14
3483	D14
3484	D14
3485	D14
3486	D13
3487	D13
3488	C12
3489	D13
3500	I 3
3501	I 4
3502	J 4
3503	H 4
3504	J 2
3505	I 5
3506	J 5
3507	J 6
3508	K 6
3509	I 5
3510	M 7
3511	M 8
3512	M 8
3514	L10
3515	L10
3516	L10
3517	K 8
3518	L 9
3519	K14
3520	I15
3521	K13
3522	K12
3523	M 6
3524	L 8
3525	M12
3526	H14
3527	I13
3528	I15
3529	K12
3530	K12
3542	M15
3560	J15
3561	K15
3562	K15
3563	J16
3565	L16
3633	E12
3730	D 2
3731	E 4
3732	F 4
3733	G 4
3734	G 4
3735	F 6
3736	F 1
3737	F 2
3738	F 2
3739	G 5
5424	C10
5440	D17
5441	D18
5443	D25
5445	G24
5446	D19
5449	D25
5454	E22
5480	F18
5480A	F18
5481	D15
5490	G22
5500	I 4
5513	J13
5520	J14
5522	K12
5523	M14
5524	M12
5525	H14
5528	I13
5529	I15
5530	I15
5531	I17
5532	H16
5540	M15
5543	M17
6412	L22
6415	J18
6416	I21
6417	K18
6418	J22
6420	E16
6423	F11
6425	C10
6426	E 9
6427	F 8
6428	D11
6437	A19
6438	B20
6439	E18
6440	D17
6441	B21
6442	B19
6443	D26
6446	D20
6447	E20
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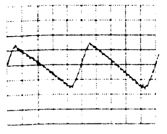
6449	D26
6450	F23
6451	F23
6452	F26
6453	D20
6455	E21
6458	E26
6470	B23
6471	F13
6473	F13
6480	E14
6481	D16
6500	J 3
6501	J 3
6502	I 6
6503	I 6
6504	I 6
6505	I 6
6506	J 5
6508	I13
6509	M 8
6510	H 7
6510	M 7
6511	M 9
6512	K12
6513	J12
6514	L10
6518	K14
6519	K14
6520	I15
6521	K13
6524	F11
6526	I13
6527	I13
6530	H16
6531	I16
6540	M15
6541	M15
6543	M16
6562	L15
6565	L16
6618	E27
6632	D12
6633	E12
7225	C 8
7332	F 4
7400	I20
7423	F11
7430	B 6
7439	E19
7440	E17
7445	D19
7446	B20
7480	D15
7481	E14
7510	K 6
7512	L 9
7513	J13
7563	K16
7730	D 3
7731	F 4
7733	F 7
7734	F 2
9437	A20
9440	D17
9454	E22
9455	E22
9472	F13
9474	E13
9481	D15
9482	D15
9484	E14
9489	D13
9501	L 3
9502	L 3
9505	M 3
9505	J 5
9506	M 3
9520	I14
9524	M12
9739	G 5
D52	F22
D52	F22
D52	F22
D52	F22
L1	I 2
L1	J 2
L2	H 5
L2	H 5
L20	H 4
L20A	H 4
L23	J 8
L23	I 8
L23	I 8
M11	M14
M11	L12
M11	K11
M11	K12
M11	L14
M11	M14
M23	I12
M23	I12
M23	J12
M4	J25
M4	J25
M4	J25
M5	D23
M5	C22
M5	C22
M5	D23
M52	F22
M52	F22
M52	F22
M52	F22
M6	A26
M6	A23
M6	A23
M6	A22
M6	A22
M72	F11
M72A	G11
M78	D 1
M78A	D 1
M79	D 1
M79A	F 1
M84	C18
M85	B11
M86	B10
M86A	B10
M89	B 7
M89A	B 8
M90A	M12
M90B	M13
P11	M11
P11	L11
P11	K11
P11	K11
P11	L11
P11	M11
SK1	H 2
SPG5	H 3
SPG6	H 3

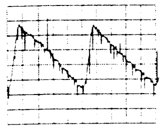
SCH : an2/3122/223/32550/01

TP12 ①



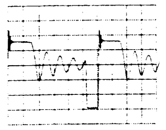
2V/div AC
2ms div

TP12 ⏻



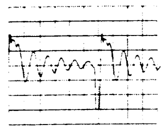
0,2V/div AC
2ms div

TP13 ①



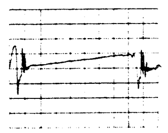
100V/div AC
5µs div

TP13 ⏻



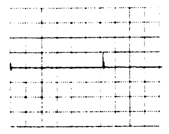
100V/div AC
5µs div

TP14 ①



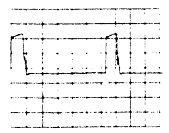
1V/div AC
0,5µs div

TP14 ⏻



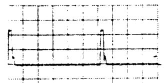
1V/div AC
0,5µs div

TP15 ①



5V/div AC
5µs div

TP15 ⏻



5V/div AC
5µs div

TP16 29" = 14V5 DC ①

TP16 29" = 15V7 DC ⏻

TP17 29" = 2V5 DC

TP18 29" = 6V DC

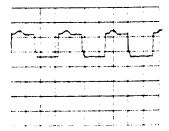
TP19 29" = 14V DC ①

TP19 29" = 15V DC ⏻

TP20 29" = 135V DC ①

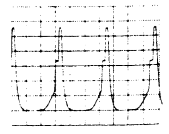
TP20 29" = 153V DC ⏻

TP21



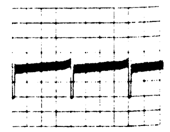
0,5V/div AC
20µs div

TP22



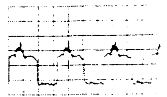
2V/div AC
20µs div

TP23



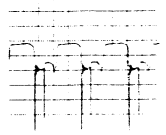
2V/div AC
5ms div

TP24



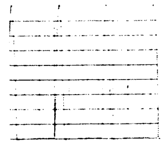
0,2V/div AC
20µs div

TP25



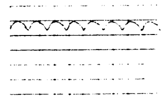
1V/div AC
20µs div

TP26



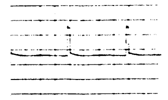
100V/div AC
20µs div

TP27



T=50us
Δv=5v

TP28



T=5ms
Δv=10v

Main carrier 25" and 29" Anubis S BB (Copper side)

1000	F3
1015	D4
1105	C5
1106	C5
1204	C5
1206	C5
1207	C5
1208	C5
1275	E4
1277	E4
1278	E4
1279	E4
1449	F2
1540	B3
1602	A5
1630	A4
2001	D3
2002	F4
2007	E3
2008	F4
2009	F4
2010	F4
2011	F4
2016	D3
2017	D3
2026	D3
2027	D3
2101	D5
2102	D5
2103	D5
2104	D4
2112	D5
2119	C5
2123	D5
2138	E5
2200	C5
2208	D5
2212	E5
2213	D4
2219	D5
2220	D5
2221	D5
2222	D4
2223	C4
2224	D5
2225	D5
2228	D5
2236	F5
2243	F5
2245	F5
2246	F5
2248	E4
2249	F4
2251	E5
2253	F4
2254	F4
2256	F4
2257	F4
2260	C5
2261	D4
2262	F4
2264	C4
2265	D4
2266	D5
2272	E4
2273	E4
2275	E4
2277	E4
2278	E4
2279	E4
2280	E5
2281	E5
2282	D5
2283	E5
2284	E5
2285	E5
2401	F2
2402	F3
2403	F2
2404	E2
2405	E2
2414	F2
2415	F3
2416	F3
2421	D4
2422	D4
2423	D4
2424	D4
2425	E4
2426	D4
2427	D4
2428	F4
2431	C2
2432	C3
2438	F1
2439	F1
2440	F1
2441	E2
2442	F1
2443	D3
2444	F1
2445	D1
2446	D1
2447	D2
2448	D2
2449	F2
2450	C1
2451	C1
2452	D2
2453	F2
2454	D2
2455	C1
2456	F1
2457	D1
2458	D2
2459	D2
2460	F2
2461	D1
2462	C1
2470	F1
2472	F2
2480	D2
2481	C2
2482	D2
2483	D3
2484	C2
2485	C3
2505	A1
2513	B1
2519	B1
2520	C2
2521	B1
2522	C2
2523	C2
2525	A2
2526	B2
2529	B1
2530	C3
2531	B3
2540	B3
2541	B3
2542	B2
2548	C2
2561	C3
2603	A5
2604	B5
2605	B5
2606	B4
2607	B5
2608	A3
2610	A3
2615	A4
2620	B4
2621	B4
2624	A3
2625	B5
2626	A3
2627	A4
2628	A4
2636	A3
2638	A5
2640	A5
2648	C3
2656	C3
2682	B3
2683	A3
2685	B3
2687	B4
2688	B3
2692	B4
2695	B3
2700	B4
2703	B4
2711	B5
2714	A5
2721	B5
2722	A5
2726	A5
2727	A5
2728	A5
2734	B3
2736	A2
2738	A3
2739	A4
3000	E3
3003	E3
3004	D3
3005	D3
3010	F4
3016	D3
3017	E3
3018	E3
3019	D3
3020	F4
3099	D3
3106	D5
3113	C4
3128	C4
3130	D5
3136	D5
3137	F5
3138	E5
3139	F5
3140	F5
3141	F5
3144	F5
3200	C5
3201	C5
3202	C5
3203	C5
3204	C5
3205	C5
3206	C5
3207	E5
3208	D5
3209	D5
3210	D4
3211	C5
3212	D3
3213	D4
3214	D5
3225	C5
3236	E5
3239	C5
3240	C4
3245	E4
3250	F5
3251	E5
3252	F5
3253	F4
3254	F4
3255	E5
3256	E5
3257	E5
3259	D5
3260	D5
3261	E3
3262	E3
3263	C4
3264	C4
3265	D3
3267	B5
3268	C5
3270	C5
3271	B5
3272	E4
3273	E4
3275	E4
3276	E4
3277	E4
3278	E4
3279	E4
3280	E4
3281	E4
3282	E4
3284	E5
3285	E5
3400	F3
3401	E3
3402	E2
3403	F2
3404	E2
3405	F2
3406	E3
3407	E3
3408	E3
3409	F2
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3412	E2
3413	F3
3414	F2
3415	F2
3416	F3
3418	E4
3419	C1
3420	D4
3421	D4
3422	D4
3423	D4
3424	D3
3425	F4
3426	F4
3427	F4
3428	F4
3429	F4
3430	C2
3431	F4
3432	C3
3433	C3
3434	C3
3435	C2
3436	D3
3437	C1
3438	D2
3439	F1
3440	F1
3442	F1
3443	D1
3444	C1
3445	E1
3446	F1
3447	D3
3448	E2
3451	D1
3452	E2
3454	C2
3455	A3
3456	D1
3457	D2
3458	D2
3460	F2
3470	F2
3471	D2
3472	D2
3473	D3
3474	D3
3480	C2
3481	D2
3482	D3
3483	D3
3484	D2
3485	D2
3486	D3
3487	C2
3488	C2
3489	D3
3519	B1
3520	C2
3521	A1
3522	B1
3525	A2
3526	B2
3527	A1
3528	C2
3529	B1
3530	B1
3542	B2
3560	C3
3561	C3
3562	C3
3563	C3
3565	C3
3597	A2
3598	A1
3599	A2
3600	A4
3601	B4
3602	B4
3603	A5
3604	A5
3605	A4
3606	C4
3607	A5
3608	A3
3609	A3
3610	A5
3611	A4
3612	C4
3617	A3
3622	A4
3625	B5
3626	A3
3627	A4
3633	A3
3634	A4
3635	A5
3636	A3
3637	A5
3638	A5
3640	A5
3641	A5
3642	A4
3643	A5
3645	B3
3646	B4
3647	B4
3648	C4
3649	C3
3650	C3
3652	B4
3653	B4
3654	C4
3656	C3
3661	A4
3662	A3
3670	B4
3671	B4
3672	B4
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3694	A4
3695	B3
3696	B5
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3700	B4
3702	B4
3703	B4
3704	B4
3705	B4
3706	B4
3707	A4
3708	B4
3709	A4
3710	A4
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3715	A5
3717	B5
3718	B5
3719	B4
3720	C4
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3727	A5
3728	A5
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3732	A2
3733	A3
3734	A3
3735	B3
3736	A2
3737	A2
3738	A2
3739	A3
5002	D3
5014	D4
5020	D3
5100	D5
5112	D5
5206	C5
5209	D5
5260	D4
5286	E5
5287	E5
5288	E5
5424	E4
5440	F1
5441	F1
5443	E2
5445	E2
5446	D1
5449	F2
5454	C2
5480	C1
5481	C2
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5520	B1
5522	B1
5523	B1
5524	B2
5525	B2
5528	B2
5529	C2
5530	C2
5531	C2
5532	C2
5540	B2
5543	C3
5620	B4
5621	B4
5622	B4
5711	B5
5720	A5
5794	C4
6016	E3
6017	D3
6108	F5
6219	D5
6254	F4
6280	E5
6281	E5
6282	E5
6284	E4
6286	E5
6287	E5
6288	E5
6412	E2
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6417	F2
6418	F3
6420	E4
6423	D4
6425	D4
6426	D4
6427	D4
6428	C4
6437	D2
6438	D1
6439	E1
6440	F1
6441	F2
6442	C1
6443	E3
6446	D1
6447	D1
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6450	D1
6451	C1
6452	D2
6453	D1
6455	F1
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6470	F2
6471	D2
6473	D2
6480	D2
6481	C2
6508	A1
6512	B1
6513	B1
6518	A1
6519	B1
6520	C2
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6524	C4
6526	B1
6527	A1
6530	C3
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6540	B3
6541	B3
6543	B3
6562	C3
6565	C3
6605	A5
6606	B5
6607	A5
6618	A3
6619	A3
6620	A3
6632	C2
6633	C3
6648	C3
6690	A4
6694	C4
6697	C4
6715	A5
6726	A5
6727	A5
6728	A5
7000	D3
7109	D3
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7213	C5
7214	C5
7215	C3
7216	C5
7217	C5
7218	F4
7219	F4
7225	D4
7240	C5
7245	F5
7255	F5
7269	C5
7270	B5
7277	E4
7278	E4
7279	E4
7332	A3
7400	F2
7423	A4
7430	C3
7439	F1
7440	F1
7445	D1
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7480	D2
7481	D2
7513	B1
7563	C3
7600	B4
7634	A4
7635	A5
7636	A3
7637	C4
7638	A3
7647	B4
7710	B5
7730	A2
7731	A3
7733	D3
7734	A2
9002	D3
9004	D3
9005	D3
9015	E3
9018	E3
9019	D2
9020	F4
9024	A5
9025	E4
9027	F4
9029	F5
9030	D3
9031	D5
9032	E5
9033	D5
9034	F4
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9036	B3
9037	C4
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9039	C5
9040	E5
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9043	E2
9050	D5
9053	C5
9054	C3
9056	E5
9057	D5
9058	C4
9060	D3
9061	D3
9062	B5
9064	C2
9065	B5
9066	C4
9067	C4
9068	C2
9069	B4
9070	E1
9071	B4
9072	C4
9073	C4
9077	C4
9078	B5
9079	A4
9080	C4
9082	C5
9088	B4
9089	C4
9090	D5
9091	B4
9093	C4
9094	C4
9095	C4
9096	B5
9097	B4
9098	D1
9099	D5
9100	D5
9104	B5
9105	B5
9106	B5
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9201	C5
9202	D5
9208	C5
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9269	C5
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9280	E5
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9282	C4
9283	C4
9286	E5
9287	E5
9288	E5
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9416	F3
9437	D2
9440	F1
9441	D3
9443	E3
9446	D1
9447	E1
9448	E1
9454	C2
9455	D1
9456	F1
9472	D2
9474	D3
9481	C2
9482	C2
9484	D2
9489	D3
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9520	B1
9524	B2
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9601	A4
9604	A5
9605	D2
9607	B5
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9620	A3
9621	A3
9622	A3
9623	B3
9625	A3
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9642	A4
9643	A5
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9732	B3
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M7	E5
M8	B5
M9	F5
M10	C5
M11	B1
M12	D3
M13	D5
M14	E5
M15	B3
M16	F5
M17	B5
M18	B5
M20A	E3
M21	A5
M22	E4
M22A	D3
M23	A1
M25	A3
M26	A5
M28	A4
M29	A4
M31	B5
M32	C5
M36	D2
M41A	F3
M41	F4
M50A	C5
M50	E3
M52	D1
M60	B3
M62	A4
M62A	B3
M72A	C4
M72	C4
M76	B5
M76A	E5
M78	A4
M78A	A4
M79	A5
M84	C1
M85	D3
M86A	D4
M86	D4
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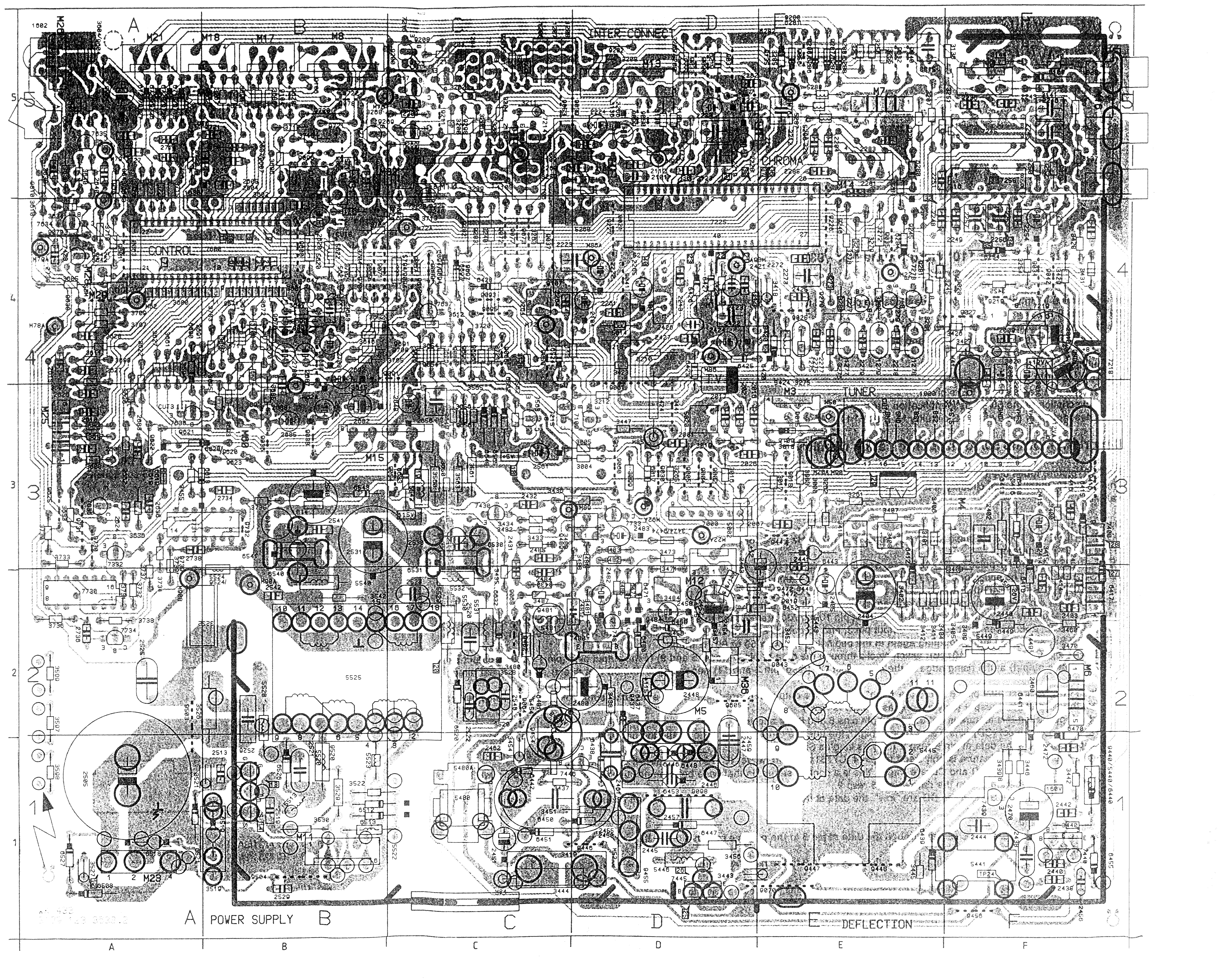
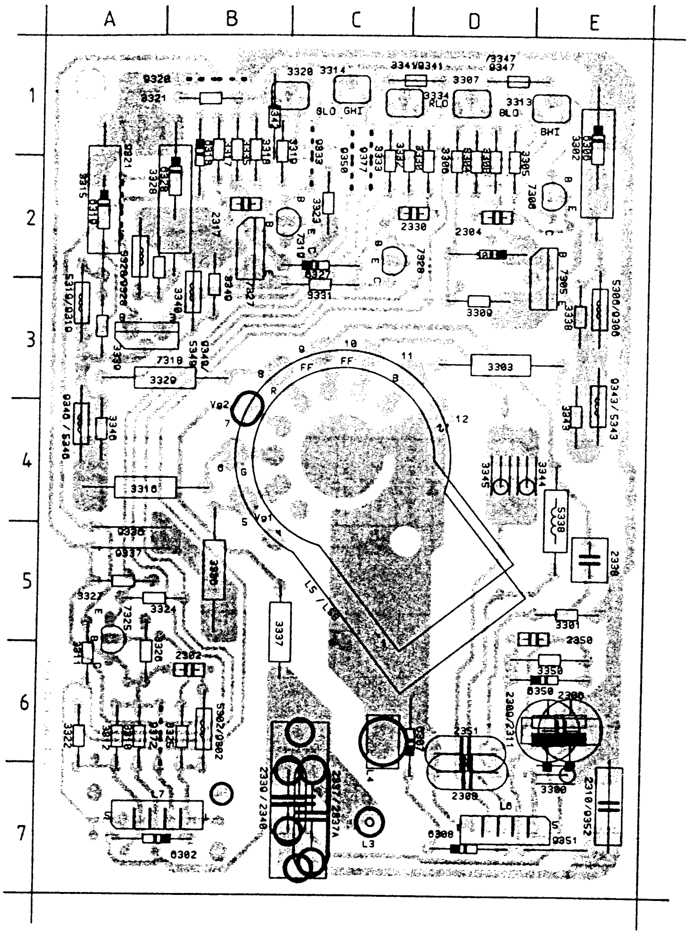
M90B	A2
M90A	B2
M90	E3
M92A	D3
M92	D5



CRT panel 25" and 29" (Copper side)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B
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3347
3307
3334
3313
BLO
GHI
RLO
BHI
9315
3321
3328
3317
3318
3319
9333
9377
9350
3323
3333
3306
3305
7306
3302
2317
7319
2330
2304
6327
7328
3331
7305
5319/9319
3340
9349/5349
7327
3309
3338
5306/9306
3339
7318
3329
3303
9343/5343
9346/5346
3346
3316
Vg2
Vg1
FF
3345
3344
5338
2338
9336
9337
3336
3337
L5/L58
3327
7325
3324
3311
3326
2302
2351
2350
3301
3350
6350
2306
3322
3312
9372
3325
9302/5302
2339/2340
2337/2337A
2308
L6
3300
2310/9352
L7
L4
L3
6302
6308
9351

2302	B6
2304	D2
2306	E6
2308	D7
2309	E6
2310	E7
2311	E6
2317	B2
2330	D2
2337	C7
2337	C7
2338	E5
2339	C7
2340	C7
2350	E5
2351	D6
3300	E7
3301	E5
3302	E2
3303	D3
3304	D2
3305	D2
3306	D2
3307	D1
3308	D2
3309	D3
3310	A6
3311	A6
3312	A6
3313	E1
3314	C1
3315	A2
3316	A4
3317	B1
3318	B1
3319	B1
3320	C1
3321	B1
3322	A6
3323	C2
3324	A5
3325	B6
3326	A6
3327	A5
3328	B2
3329	B3
3330	D2
3331	C3
3332	C2
3333	C2
3334	C1
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3336	B5
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3338	E3
3339	A3
3340	A2
3341	D1
3342	B1
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3344	E4
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5319	A3
5328	A2
5338	E4
5343	E4
5346	A4
5349	B3
6302	A7
6305	D2
6306	E1
6307	D6
6308	D7
6318	B1
6319	A2
6327	C2
6328	B2
6350	E6
7305	E2
7306	E2
7318	A3
7319	B2
7325	A5
7327	B2
7328	C2
9302	B6
9306	E3
9319	A3
9321	A2
9333	C1
9336	A5
9337	A5
9341	D1
9343	E4
9346	A4
9347	D1
9349	B3
9350	C2
9351	E7
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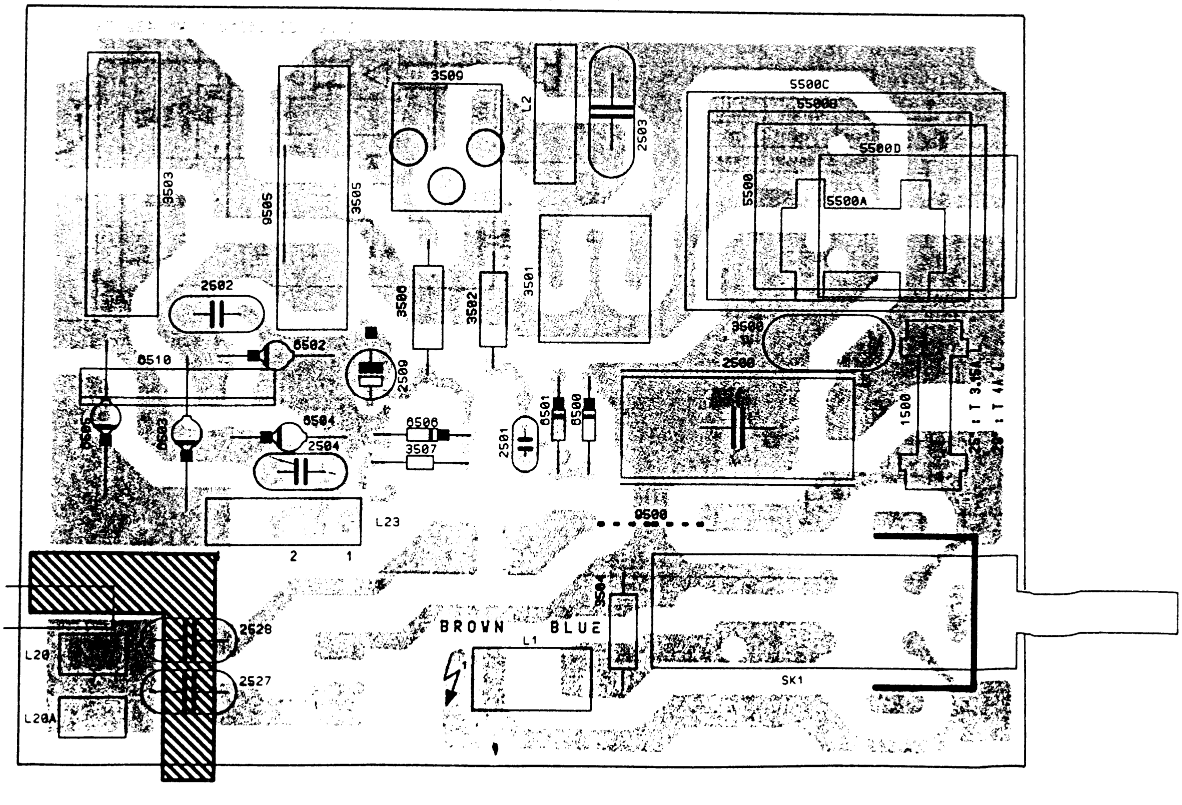
L6	D7
L7	B7
L58	C4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5500C
5500B
5500D
5500A
5500
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3505
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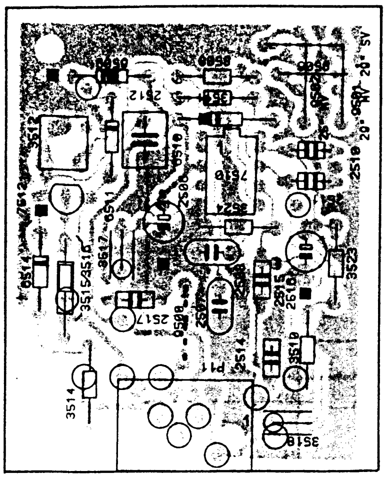
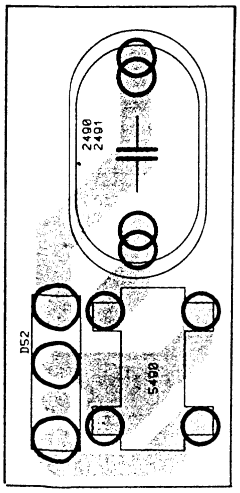
6502
6510
2509
6504
2504
6506
3507
2501
6501
6500
3600
2500
1500
L23
2
1
9500
3504
BROWN
BLUE
L1
SK1
2528
2527
L20
L20A

Power supply control panel 25" and 29" (Copper side)



S-correction panel 25" 110° (Copper side)



Main carrier 25" and 29" [AA/B/C/D]

Various

	4822 404 21262	Bracket clamping heatsink
	4822 492 62076	Spring for TS7513 and IC7400
▲	4822 492 70289	Spring for TS7445
▲	4822 532 61201	EHT cable spacer
	4822 265 31193	3 pins male WTB
▲	4822 265 20441	3 pins header
	4822 417 50217	4 pins male BTB (AU)
	4822 265 31189	4 pins male WTB
	4822 265 30378	4 pins male WTB
	4822 265 30796	4 pins header (M5)
	4822 265 30934	5 pins header (M26)
	4822 265 31181	5 pins male WTB (M25)
	4822 265 31093	6 pins male BTB (AU)
	4822 265 31099	6 pins snap blue
	4822 290 40295	7 pins male WTB
	4822 267 51241	8 pins male BTB (AU)
	4822 265 40818	8 pins male WTB
1000	4822 210 10448	UV915E/IEC
1000▲	4822 210 10459	UV913/IEC
1000	4822 210 10561	UV936E/F (PLL)
1000	3139 147 11380	UV953/IEC -/93 (local sourcing)
1015	4822 242 72197	OFWK2950 38.9 MHz
1015	4822 242 73792	OFWM1963 45.75 MHz
1015	4822 242 81556	OFWK2950M 38.9 MHz
1015	4822 242 81637	OFWK3952M 38.9 MHz
1105	4822 242 71713	6.0 MHz
1105	4822 242 72547	5.5 MHz
1105	4822 242 81557	4.5 MHz
1106	4822 242 72057	6.5 MHz
1204	4822 242 71207	4.5 MHz
1206	4822 242 71207	4.5 MHz
1206	4822 242 81712	5.5/5.74 MHz
1207	4822 242 81301	6.5 MHz
1208	4822 153 30025	6.0 MHz
1208	4822 242 81712	5.5/5.74 MHz
1275	4822 242 81691	4.433619 MHz
1277	4822 242 81575	3.579500 MHz
1449▲	4822 071 56301	Fuse 630 mA
1540▲	4822 071 53152	Fuse 3.15 A
1630	4822 242 81727	10.0 MHz ceramic
1630	4822 242 81893	10.0 MHz crystal

⊣⊢

2001	4822 126 12642	10nF 20% 50V
2002	4822 124 81022	1μF 20% 50V
2007	4822 121 41856	22nF 5% 250V
2008	5322 121 42386	100nF 5% 63V
2009	4822 126 12642	10nF 20% 50V
2010	4822 124 40202	1500μF 20% 16V
2016	4822 126 12642	10nF 20% 50V
2017	4822 122 31348	120pF 2% 100V
2026	4822 122 31056	12pF 2% 100V
2027	4822 126 12642	10nF 20% 50V
2101	4822 122 33532	3.3nF 5% 50V
2102	4822 122 31072	47pF 2% 100V
2102	4822 126 12641	4.7nF 20%
2102	4822 126 12789	82pF 5% 50V
2103	4822 121 51231	820pF 1% 400V
2104	4822 124 40248	10μF 20% 63V
2112	4822 122 31072	47pF 2% 100V
2112	4822 126 12519	330pF 10%
2112	4822 126 13097	560pF 10% 50V
2119	4822 126 12862	56pF 5% 50V
2119	4822 126 13096	270pF 10% 50V
2123	4822 126 12639	2.2nF 20%
2200	4822 121 51319	1μF 10% 63V
2208	4822 122 33449	47nF 30% 50V
2212	5322 121 42386	100nF 5% 63V
2213	4822 121 42868	220nF 5% 50V
2219	4822 121 51319	1μF 10% 63V
2220▲	4822 124 40433	47μF 20% 25V
2221	5322 121 42386	100nF 5% 63V
2222	4822 124 81023	2.2μF 20% 50V
2223	5322 121 42386	100nF 5% 63V
2224	4822 124 81021	100μF 20% 16V
2225	4822 126 12643	22nF 20% 50V
2228	4822 121 51252	470nF 5% 63V
2228	4822 124 81022	1μF 20% 50V
2236	5322 122 32491	1nF 20% 100V
2243	4822 126 12643	22nF 20% 50V
2245	5322 121 42386	100nF 5% 63V
2246	4822 121 42408	220nF 5% 63V
2248	5322 122 32491	1nF 20% 100V
2249	5322 122 32491	1nF 20% 100V
2251	4822 126 12643	22nF 20% 50V
2253	4822 126 12643	22nF 20% 50V
2254	4822 124 81032	22μF 20% 50V
2254	5322 124 41431	22μF 20% 35V
2256	5322 121 42386	100nF 5% 63V
2257	5322 121 42386	100nF 5% 63V
2260	4822 122 31061	18pF 2% 100V
2260	4822 126 12861	15pF 5% 50V
2261	4822 126 12643	22nF 20% 50V
2262▲	4822 124 40433	47μF 20% 25V
2264	4822 126 12643	22nF 20% 50V
2265	4822 124 81023	2.2μF 20% 50V
2266	4822 124 41757	10μF 20% 16V
2272	4822 126 12641	4.7nF 20%
2273	5322 121 42386	100nF 5% 63V
2275	5322 122 32334	220pF 10% 100V
2277	5322 122 32334	220pF 10% 100V
2280	4822 121 43526	47nF 5% 250V
2281	5322 122 32491	1nF 20% 100V
2282	5322 122 32491	1nF 20% 100V
2283	5322 122 32491	1nF 20% 100V
2284	4822 121 43526	47nF 5% 250V
2285	4822 121 43526	47nF 5% 250V
2302	4822 126 12643	22nF 20% 50V
2304	4822 126 13097	560pF 10% 50V
2306	4822 124 80495	4.7μF 20%
2317	4822 126 13097	560pF 10% 50V
2330	4822 126 13097	560pF 10% 50V
2340	4822 126 12833	4.7nF 20% 2KV
2350	5322 122 32491	1nF 20% 100V
2351	4822 121 41673	220nF 10% 100V
2401	4822 122 31176	390pF 10% 500V
2401	4822 126 13185	680pF 10% 500V
2402	5322 121 42386	100nF 5% 63V
2403	4822 126 11134	5.6nF 10% 50V
2404	4822 124 81039	3300μF 20% 25V
2405	4822 124 21212	15μF 20% 40V
2414	4822 126 12639	2.2nF 20%
2415	4822 124 80059	100μF 20% 25V
2416	4822 121 43526	47nF 5% 250V
2421	4822 122 33305	2.7nF 5% 50V
2422	4822 121 43823	470nF 5% 50V
2423	4822 126 12864	2.2nF 2% 250V
2424	4822 124 81022	1μF 20% 50V
2425	4822 126 12642	10nF 20% 50V
2426	4822 121 41853	100nF 10% 100V
2427	4822 126 12641	4.7nF 20%
2428	4822 122 30045	27pF 2% 100V
2431	4822 121 43526	47nF 5% 250V
2431	4822 122 33449	47nF 30% 50V
2432	4822 121 43526	47nF 5% 250V
2432	4822 122 33449	47nF 30% 50V
2438	4822 121 42007	100nF 10% 100V
2439	4822 126 11308	47pF 5% 500V
2440	4822 126 12519	330pF 10%
2441▲	4822 126 11382	1nF 10% 1KV
2442	4822 122 40112	560pF 20% 500V
2443	4822 124 41545	220μF 20% 16V
2444	4822 121 42007	100nF 10% 100V
2445▲	4822 126 12274	1500pF 10%R(HR) 2KV
2446▲	4822 121 70465	11nF 5% 1.6KV
2446▲	4822 121 70542	12nF 5% 1.6KV
2447▲	4822 126 13435	12nF 10% 2KV
2448	4822 124 22583	47μF 160V
2448	4822 124 81042	47μF 50-20% 200V
2449▲	4822 126 11382	1nF 10% 1KV
2450▲	4822 121 42073	390 nF 10% 400V
2450	4822 121 70281	510nF 5% 400V
2451	4822 124 81043	10μF 20% 100V
2451	4822 124 40756	1μF 20% 100V
2452	4822 124 22582	22mF 20% 16V
2452	4822 124 40432	1500μF 20% 25V
2453	4822 124 41747	680μF 20% 35V
2453	4822 124 80063	680μF 20% 35V
2454▲	4822 126 11382	1nF 10% 1KV
2456	4822 126 11308	47pF 5% 500V
2457	4822 121 51524	56nF 10% 250V
2457	5322 121 42532	18nF 10% 400V
2458	4822 124 81022	1μF 20% 50V
2460	4822 121 51385	33nF 20% 100V
2461	4822 121 40475	15nF 10% 400V
2462▲	4822 126 12269	680 pF 10%R(HR) 2KV
2470	4822 124 10533	2μF 20% 250V
2472	4822 126 12792	22nF 10% 500V
2480	4822 121 43368	4μF 160V
2480	4822 124 40756	1μF 20% 100V
2481	4822 121 43396	120nF 5% 63V
2482	4822 124 81022	1μF 20% 50V
2483▲	4822 124 40433	47μF 20% 25V
2484	4822 126 11134	56nF 10% 50V
2484	4822 126 12639	22nF 20%
2485	4822 121 51436	820nF 10% 63V
2505	4822 124 41748	220μF 20% 400V
2505▲	4822 124 42159	330μF 20% 400V
2505	4822 124 80855	330μF 20% 400V
2513	4822 126 12792	22nF 10% 500V
2520▲	4822 126 12269	680pF 10%R(HR) 2KV
2521▲	4822 126 12095	220pF 10% 2KV
2522	4822 126 11824	100pF 10% 1KV
2525▲	4822 122 40602	1μF 20% 400V

Spare parts list

2526	4822 121 42071	3.9nF 10% 400V
2529	4822 126 12642	10nF 20% 50V
2530	4822 126 13153	1nF 10%R(HR) 3KV
2531	4822 124 22583	47µF 160V
2531	4822 124 81042	47µF 20% 200V
2540	4822 124 42106	1500µF 20% 35V
2541▲	4822 126 11382	1nF 10% 1KV
2548	4822 126 11824	100pF 10% 1KV
2561	4822 124 81032	22µF 20% 50V
2561	5322 124 41431	22µF 20% 35V
2604	4822 122 33293	100pF 5% 50V
2605	4822 124 40749	3.3µF 20% 63V
2605	4822 124 81041	3.3µF 20% 50V
2606	4822 126 12643	22nF 20% 50V
2607	4822 122 33293	100pF 5% 50V
2608	5322 122 32356	820pF 10% 100V
2610	5322 122 32356	820pF 10% 100V
2615	5322 122 32356	820pF 10% 100V
2620	4822 124 81022	1µF 20% 50V
2624	5322 122 32356	820pF 10% 100V
2625	5322 122 32356	820pF 10% 100V
2626	5322 122 32356	820pF 10% 100V
2627	5322 122 32356	820pF 10% 100V
2628	5322 122 32356	820pF 10% 100V
2636	4822 122 33307	10nF 5% 50V
2636	4822 126 12642	10nF 20% 50V
2638	5322 122 32491	1nF 20% 100V
2640	4822 122 30045	27pF 2% 100V
2648	4822 124 40248	10µF 20% 63V
2656	5322 121 42661	330nF 5% 63V
2682▲	4822 124 40433	47µF 20% 25V
2682	4822 124 81022	1µF 20% 50V
2683	4822 126 12639	2.2nF 20%
2683	5322 121 42386	100nF 5% 63V
2685	4822 124 81032	22µF 20% 50V
2686	4822 124 81022	1µF 20% 50V
2687	4822 124 81022	1µF 20% 50V
2688	5322 122 32491	1nF 20% 100V
2689	5322 122 32491	1nF 20% 100V
2692	4822 124 40753	6.8µF 20% 63V
2692	4822 124 81022	1µF 20% 50V
2695	4822 124 81032	22µF 20% 50V
2700	4822 124 40248	10µF 20% 63V
2700	4822 124 40753	6.8µF 20% 63V
2703▲	4822 124 40433	47µF 20% 25V
2711	4822 126 12643	22nF 20% 50V
2714	4822 126 12868	47pF 5% 50V
2714	5322 122 32334	220pF 10% 100V
2721	4822 122 31061	18pF 2% 100V
2721	5322 122 32143	22pF 100V
2722	4822 122 31061	18pF 2% 100V
2722	5322 122 32143	22pF 100V
2726	4822 122 33293	100pF 5% 50V
2727	4822 122 33293	100pF 5% 50V
2728	4822 122 33293	100pF 5% 50V
2734	4822 126 11134	5.6nF 10% 50V
2736	4822 122 33527	100pF 10% 50V
2738	4822 122 33532	3.3nF 5% 50V
2739	5322 122 32491	1nF 20% 100V

3000	4822 116 52263	2k7 5% 0.5W
3004	4822 116 52207	1k2 5% 0.5W
3005	4822 116 52207	1k2 5% 0.5W
3010▲	4822 052 10109	10Ω 5% 0.33W
3016	4822 116 52269	3k3 5% 0.5W
3017	4822 116 52257	22k 5% 0.5W
3018	4822 116 52256	2k2 5% 0.5W
3019	4822 116 52244	15k 5% 0.5W
3099	4822 050 23305	3M3 1% 0.6W
3106	4822 116 52228	680Ω 5% 0.5W
3113	4822 050 11002	1k 1% 0.4W
3128	4822 050 11002	1k 1% 0.4W
3200	4822 116 52244	15k 5% 0.5W
3201	4822 050 11002	1k 1% 0.4W
3203	4822 116 52256	2k2 5% 0.5W
3204	4822 116 52256	2k2 5% 0.5W
3205	4822 116 52256	2k2 5% 0.5W
3206	4822 116 52175	100Ω 5% 0.5W
3206	4822 116 52213	180Ω 5% 0.5W
3207	4822 116 52269	3k3 5% 0.5W
3208	4822 050 11002	1k 1% 0.4W
3208	4822 116 52253	2k 5% 0.5W
3210	4822 116 52234	100k 5% 0.5W
3211▲	4822 050 23301	330Ω 1% 0.6W
3212	4822 116 52283	4k7 5% 0.5W
3213	4822 116 52234	100k 5% 0.5W
3214	4822 050 11002	1k 1% 0.4W
3225	4822 116 52283	4k7 5% 0.5W
3236	4822 116 52233	10k 5% 0.5W
3250	4822 116 52233	10k 5% 0.5W
3251	4822 116 52233	10k 5% 0.5W
3252	4822 116 52176	10Ω 5% 0.5W
3253	4822 116 52176	10Ω 5% 0.5W
3254	4822 116 52226	560Ω 5% 0.5W
3255	4822 050 11002	1k 1% 0.4W
3256	4822 050 11002	1k 1% 0.4W
3257	4822 050 11002	1k 1% 0.4W
3259	4822 050 11002	1k 1% 0.4W
3260	4822 116 52291	56k 5% 0.5W
3261	4822 116 52238	12k 5% 0.5W
3261	4822 116 52271	33k 5% 0.5W
3262	4822 116 52296	6k8 5% 0.5W
3263	4822 116 52244	15k 5% 0.5W
3264	4822 100 20166	10k 30% lin 0.1W
3265	4822 116 52207	1k2 5% 0.5W
3265	4822 116 52231	820Ω 5% 0.5W
3267	4822 116 52244	15k 5% 0.5W
3268	4822 116 52233	10k 5% 0.5W
3270	4822 116 52264	27k 5% 0.5W
3271	4822 116 52283	4k7 5% 0.5W
3273	4822 116 52234	100k 5% 0.5W
3278	4822 116 52283	4k7 5% 0.5W
3284	4822 050 11002	1k 1% 0.4W
3300▲	4822 052 10101	100Ω 5% 0.33W
3301	4822 116 52265	270k 5% 0.5W
3302	4822 053 12123	12k 5% 3W
3303	4822 050 21502	1k5 1% 0.6W
3304	4822 116 52175	100Ω 5% 0.5W
3305	4822 116 52215	220Ω 5% 0.5W
3306	4822 116 52246	1k6 5% 0.5W
3307	5322 100 11542	4k7 30% lin 0.1W
3308	4822 116 52175	100Ω 5% 0.5W
3309	4822 116 52213	180Ω 5% 0.5W
3310	4822 116 52289	5k6 5% 0.5W
3311	4822 116 52289	5k6 5% 0.5W
3312	4822 116 52289	5k6 5% 0.5W
3313	5322 100 11541	2k2 30% lin 0.1W
3314	5322 100 11541	2k2 30% lin 0.1W
3315	4822 053 12123	12k 5% 3W
3316	4822 050 21502	1k5 1% 0.6W
3317	4822 116 52175	100Ω 5% 0.5W
3318	4822 116 52215	220Ω 5% 0.5W
3319	4822 116 52246	1k6 5% 0.5W
3320	5322 100 11542	4k7 30% lin 0.1W
3321	4822 116 52175	100Ω 5% 0.5W
3322	4822 116 52222	390Ω 5% 0.5W
3323	4822 116 52213	180Ω 5% 0.5W
3324	4822 116 52243	1k5 5% 0.5W
3325	4822 116 52283	4k7 5% 0.5W
3326	4822 116 52217	270Ω 5% 0.5W
3327	4822 116 52228	680Ω 5% 0.5W
3328	4822 053 12123	12k 5% 3W
3329	4822 050 21502	1k5 1% 0.6W
3330	4822 116 52175	100Ω 5% 0.5W
3331	4822 116 52213	180Ω 5% 0.5W
3332	4822 116 52215	220Ω 5% 0.5W
3333	4822 116 52246	1k6 5% 0.5W
3334	5322 100 11542	4k7 30% lin 0.1W
3335	4822 116 52175	100Ω 5% 0.5W
3336	4822 050 21502	1k5 1% 0.6W
3337	4822 050 21502	1k5 1% 0.6W
3344▲	4822 052 10188	1Ω8 5% 0.33W
3345▲	4822 052 10278	2Ω7 5% 0.33W
3350	4822 116 52234	100k 5% 0.5W
3400	4822 116 52256	2k2 5% 0.5W
3401	4822 116 52243	1k5 5% 0.5W
3402	4822 050 11002	1k 1% 0.4W
3402▲	4822 050 21002	1k 1% 0.6W
3403	4822 116 52259	2k4 5% 0.5W
3403	4822 116 52263	2k7 5% 0.5W
3404	4822 116 52243	1k5 5% 0.5W
3404	4822 116 52266	3k 5% 0.5W
3405	4822 116 52193	39Ω 5% 0.5W
3405	4822 116 81844	2Ω7 5% 0.5W
3406	4822 116 52257	22k 5% 0.5W
3406	4822 116 52271	33k 5% 0.5W
3407	4822 116 52254	20k 5% 0.5W
3407	4822 116 52264	27k 5% 0.5W
3408	4822 273 30397	1P 50M A 35V
3409	4822 116 52276	3k9 5% 0.5W
3410	4822 100 11391	330Ω 30% lin 0.1W
3411	4822 116 80676	1Ω5 5% 0.5W
3412	4822 116 80676	1Ω5 5% 0.5W
3413▲	4822 053 10221	220Ω 5% 1W
3414	4822 116 52256	2k2 5% 0.5W
3415	4822 116 52256	2k2 5% 0.5W
3416	4822 053 11152	1k5 5% 2W
3416▲	4822 053 11181	180Ω 5% 2W
3418▲	4822 050 21001	100Ω 1% 0.6W
3419	4822 117 11561	4k7 10% 5W
3420	4822 100 20166	10k 30% lin 0.1W
3421	4822 116 52235	1M 5% 0.5W
3421	4822 116 52305	820k 5% 0.5W
3422	4822 116 52251	18k 5% 0.5W
3423	4822 116 52176	10Ω 5% 0.5W
3424	4822 053 10391	390Ω 5% 1W
3425	4822 116 52278	390k 5% 0.5W
3426	4822 116 52298	680k 5% 0.5W
3427	4822 116 52305	820k 5% 0.5W
3428	4822 116 52257	22k 5% 0.5W
3429	4822 116 52297	68k 5% 0.5W
3430	4822 116 52258	220k 5% 0.5W
3430	4822 116 52278	390k 5% 0.5W
3431	4822 116 52276	3k9 5% 0.5W
3432	4822 116 52245	150k 5% 0.5W
3432	4822 116 52252	180k 5% 0.5W
3433	4822 116 52304	82k 5% 0.5W
3434	4822 116 52263	2k7 5% 0.5W
3434	4822 116 52283	4k7 5% 0.5W
3435	4822 116 52259	2k4 5% 0.5W
3435	4822 116 52283	4k7 5% 0.5W
3436	4822 050 24705	4M7 1% 0.6W
3436	4822 050 26805	6M8 1% 0.6W
3437	4822 116 52244	15k 5% 0.5W
3438	4822 116 52303	8k2 5% 0.5W
3439	4822 116 52269	3k3 5% 0.5W
3440	4822 116 52199	68Ω 5% 0.5W
3442	4822 116 52289	5k6 5% 0.5W
3443▲	4822 052 10222	2k2 5% 0.33W
3446	4822 116 52213	180Ω 5% 0.5W
3447	4822 116 52296	6k8 5% 0.5W
3448▲	4822 052 11108	1Ω 5% 0.5W
3451	4822 116 52271	33k 5% 0.5W
3452▲	4822 052 10279	27Ω 5% 0.33W
3452▲	4822 052 11108	1Ω 5% 0.5W
3454	4822 050 22202	2k2 1% 0.6W
3455	4822 116 52228	680Ω 5% 0.5W
3456▲	4822 053 20334	330k 5% 0.25W
3456▲	4822 053 20434	430k 5% 0.25W
3457	4822 116 52233	10k 5% 0.5W
3458	4822 116 52226	560Ω 5% 0.5W
3460	4822 116 52251	18k 5% 0.5W
3460	4822 116 52257	22k 5% 0.5W
3470▲	4822 052 11828	8Ω2 5% 0.5W
3471	4822 116 52224	470Ω 5% 0.5W
3472	4822 116 52228	680Ω 5% 0.5W
3473	4822 116 52224	470Ω 5% 0.5W
3474	4822 116 52223	430Ω 5% 0.5W
3480▲	4822 052 10128	1Ω2 5% 0.33W
3481	4822 116 52252	180k 5% 0.5W
3481	4822 116 52284	47k 5% 0.5W
3482	4822 116 52251	18k 5% 0.5W
3482	4822 116 52284	47k 5% 0.5W
3483	4822 116 52283	4k7 5% 0.5W
3483	4822 116 52291	56k 5% 0.5W
3484	4822 100 20166	10k 30% lin 0.1W
3484	4822 101 11003	220k 30% 0.1W
3485	4822 050 11002	1k 1% 0.4W
3486	4822 116 52224	470Ω 5% 0.5W
3486	4822 116 52283	4k7 5% 0.5W
3487	4822 116 52235	1M 5% 0.5W
3487	4822 117 11566	2M 5%
3488	4822 116 52234	100k 5% 0.5W
3489	4822 100 11348	1k 30% lin 0.1W
3489	4822 100 20589	20k 30% lin 0.1W
3519	4822 117 10422	0.33Ω 5% 3W
3520	4822 113 80637	1k5 5% 5W
3521▲	4822 052 10222	2k2 5% 0.33W
3522	4822 116 52206	120Ω 5% 0.5W
3522	4822 116 52215	220Ω 5% 0.5W
3525▲	4822 116 60127	4M 7 5% 1W
3526	4822 053 11473	47k 5% 2W
3527▲	4822 052 11109	10Ω 5% 0.5W
3528	4822 117 11562	1k5 5% 7W
3529	4822 116 52298	680k 5% 0.5W
3530	4822 116 52231	820Ω 5% 0.5W
3542	4822 116 52191	33Ω 5% 0.5W
3560	4822 116 52213	180Ω 5% 0.5W
3561	4822 116 52195	47Ω 5% 0.5W
3562	4822 116 52224	470Ω 5% 0.5W
3563	4822 116 52215	220Ω 5% 0.5W
3565	4822 116 52233	10k 5% 0.5W
3597	4822 116 52233	10k 5% 0.5W
3597	4822 116 52234	100k 5% 0.5W
3597	4822 116 52239	120k 5% 0.5W
3597	4822 116 52245	150k 5% 0.5W
3597	4822 116 52252	180k 5% 0.5W
3597	4822 116 52258	220k 5% 0.5W
3597	4822 116 52291	56k 5% 0.5W
3597	4822 116 52297	68k 5% 0.5W
3598	4822 116 52271	33k 5% 0.5W
3599	4822 116 52228	680Ω 5% 0.5W
3599	4822 116 52252	180k 5% 0.5W
3599	4822 116 52269	3k3 5% 0.5W
3599	4822 116 52272	330k 5% 0.5W
3599	4822 116 52284	47k 5% 0.5W
3599	4822 116 52289	5k6 5% 0.5W
3599	4822 116 52291	56k 5% 0.5W
3599	4822 116 52297	68k 5% 0.5W
3600	4822 116 90884	8k2 x 10 res. bank
3601	4822 116 90883	8k2 x 8 res. bank
3602	4822 116 90885	8k2 x 6 res. bank
3603	4822 116 52269	3k3 5% 0.5W
3604	4822 116 52175	100Ω 5% 0.5W
3605	4822 116 52228	680Ω 5% 0.5W
3606	4822 116 52283	4k7 5% 0.5W
3607	4822 116 52303	8k2 5% 0.5W
3608	4822 116 52175	100Ω 5% 0.5W
3609	4822 116 52175	100Ω 5% 0.5W
3611	4822 116 52175	100Ω 5% 0.5W
3612	4822 116 52304	82k 5% 0.5W
3617	4822 116 52175	100Ω 5% 0.5W
3622	4822 116 52284	47k 5% 0.5W
3625	4822 050 11002	1k 1% 0.4W
3626	4822 116 52195	47Ω 5% 0.5W
3626	4822 116 52284	47k 5% 0.5W
3627	4822 116 52283	4k7 5% 0.5W
3633	4822 050 11002	1k 1% 0.4W
3633	4822 116 52303	8k2 5% 0.5W
3634	4822 116 52297	68k 5% 0.5W
3635	4822 116 52233	10k 5% 0.5W
3637	4822 116 52278	390k 5% 0.5W
3638	4822 116 52258	220k 5% 0.5W
3640	4822 116 52265	270k 5% 0.5W
3640	4822 116 52297	68k 5% 0.5W
3641	4822 116 52239	120k 5% 0.5W
3641	4822 116 52271	33k 5% 0.5W
3642	4822 116 52256	2k2 5% 0.5W
3643	4822 116 52256	2k2 5% 0.5W
3645	4822 050 26804	680k 1% 0.6W
3646	4822 116 52263	2k7 5% 0.5W
3647	4822 116 52233	10k 5% 0.5W
3647	4822 116 52284	47k 5% 0.5W
3648	4822 116 52257	22k 5% 0.5W
3648	4822 116 52261	24k 5% 0.5W
3649	4822 116 52238	12k 5% 0.5W
3650	4822 116 52244	15k 5% 0.5W
3652	4822 116 52258	220k 5% 0.5W
3653	4822 116 52211	150Ω 5% 0.5W
3654	4822 116 52244	15k 5% 0.5W
3656	4822 116 52233	10k 5% 0.5W
3661	4822 116 52249	1k8 5% 0.5W
3662	4822 116 52289	5k6 5% 0.5W
3670	4822 116 52226	560Ω 5% 0.5W
3671	4822 116 52226	560Ω 5% 0.5W
3672	4822 116 52233	10k 5% 0.5W
3673	4822 116 52233	10k 5% 0.5W
3681	4822 050 22203	22k 1% 0.6W
3682	4822 116 52257	22k 5% 0.5W
3683	4822 116 52257	22k 5% 0.5W
3684▲	4822 050 21003	10k 1% 0.6W
3685	4822 116 52257	22k 5% 0.5W
3685	4822 116 52284	47k 5% 0.5W
3686▲	4822 050 21003	10k 1% 0.6W
3687	4822 116 52284	47k 5% 0.5W
3688	4822 116 52175	100Ω 5% 0.5W
3688	4822 116 52195	47Ω 5% 0.5W
3689	4822 116 52175	100Ω 5% 0.5W
3690	4822 116 52175	100Ω 5% 0.5W
3691	4822 116 52284	47k 5% 0.5W
3691	4822 116 52303	8k2 5% 0.5W
3692	4822 116 52304	82k 5% 0.5W
3693	4822 116 52257	22k 5% 0.5W
3693	4822 116 52284	47k 5% 0.5W
3694	4822 116 52195	47Ω 5% 0.5W
3695	4822 116 52238	12k 5% 0.5W
3695	4822 116 52277	39k 5% 0.5W
3696	4822 050 11002	1k 1% 0.4W
3696	4822 116 52283	4k7 5% 0.5W
3697	4822 116 52175	100Ω 5% 0.5W
3698	4822 116 52175	100Ω 5% 0.5W
3699	4822 116 52303	8k2 5% 0.5W
3700	4822 116 52284	47k 5% 0.5W
3702	4822 116 52239	120k 5% 0.5W
3703	4822 116 52284	47k 5% 0.5W
3704	4822 116 52233	10k 5% 0.5W
3706	4822 116 52252	180k 5% 0.5W
3707	4822 116 52256	2k2 5% 0.5W
3708	4822 116 52245	150k 5% 0.5W
3709	4822 050 11002	1k 1% 0.4W
3710	4822 116 52222	390Ω 5% 0.5W
3711	4822 116 52284	47k 5% 0.5W
3713	4822 116 52278	390k 5% 0.5W
3715	4822 116 52249	1k8 5% 0.5W
3717	4822 116 52269	3k3 5% 0.5W
3718	4822 116 52269	3k3 5% 0.5W
3719	4822 116 52233	10k 5% 0.5W
3720	4822 116 52206	120Ω 5% 0.5W
3721	4822 116 52206	120Ω 5% 0.5W
3726	4822 116 52283	4k7 5% 0.5W
3727	4822 116 52283	4k7 5% 0.5W
3728	4822 116 52283	4k7 5% 0.5W
3730	4822 116 52283	4k7 5% 0.5W
3731	4822 116 52233	10k 5% 0.5W
3732	4822 116 52233	10k 5% 0.5W
3733	4822 116 52233	10k 5% 0.5W
3734	4822 116 52244	15k 5% 0.5W
3735	4822 116 52234	100k 5% 0.5W
3736	4822 116 52285	470k 5% 0.5W
3737	4822 116 52283	4k7 5% 0.5W
3738	4822 116 52283	4k7 5% 0.5W

5002▲	4822 157 53941	100µH 10%
5014	4822 157 53343	0.82µH 20%
5014	4822 157 63065	0.68µH 10%
5020	4822 157 70439	Toko
5094	4822 157 71112	3.3µH 10%
5100	4822 157 71039	120µH 10%
5112	4822 157 52224	15µH 10%
5112▲	4822 157 52286	22µH 10%
5112	4822 157 53906	47µH 10%
5206	4822 152 20667	5.6µH 10%
5206	4822 157 53303	12µH 10%
5206	4822 157 62767	8.2µH 10%
5209▲	4822 157 52265	100µH 10%
5209	4822 157 71404	100µH 5%
5260	4822 157 71117	Toko 38.9 MHz
5260	4822 157 71407	Toko 45.75 MHz
5286	4822 152 20667	5.6µH 10%
5286	4822 157 53303	12µH 10%
5287	4822 152 20667	5.6µH 10%
5287	4822 157 53303	12µH 10%
5288	4822 152 20667	5.6µH 10%
5288	4822 157 53303	12µH 10%
5338	4822 156 20966	47µH 10%
5424	4822 157 52007	4.7µH 10%
5441	4822 146 10111	Line driver
5443▲	4822 157 51462	10µH 10%

Spare parts list

5445▲	4822 140 10494	LOT 25" TXT & non TXT
5445▲	4822 140 10511	LOT 25" -/93
5445▲	4822 140 10506	LOT 29" non TXT
5445▲	4822 140 10507	LOT 29" TXT
5446	4822 157 60171	Bead 10 MHz
5449▲	4822 157 51462	10µH 10%
5454	4822 157 71118	Lin. coil 25"
5454	4822 152 20721	Lin. coil 25" -/93
5454	4822 157 71406	Lin. coil 29"
5480▲	4822 157 71405	Bridge coil
5480▲	4822 157 10728	Bridge coil -/93
5481	4822 157 62336	100µH 10%
5513	4822 157 60171	Bead 10 MHz
5522	4822 157 52007	4.7µH 10%
5523	4822 152 20667	5.6µH 10%
5524	4822 157 63708	5.6µH 10%
5525▲	4822 146 31348	FFS transformer 25"
5525▲	4822 140 10508	FFS transformer 29" 140-276V
5525▲	4822 148 81405	FFS transformer 29" 90-276V
5528	4822 157 70823	3µ9 10%
5529	4822 157 60171	Bead 10 MHz
5530	4822 157 60171	Bead 10 MHz
5531	4822 157 63698	33µH 7.5%
5532	4822 157 60171	Bead 10 MHz
5540	4822 157 60171	Bead 10 MHz
5543	4822 157 52259	5.6µH 10%
5620▲	4822 157 52285	6.8µH 10%
5620	4822 157 71112	3.3µH 10%
5621▲	4822 157 52285	6.8µH 10%
5621	4822 157 71112	3.3µH 10%
5711▲	4822 157 52285	6.8µH 10%
5720▲	4822 157 52286	22µH 10%
5720	4822 157 52983	22µH 10%

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6016	5322 130 34955	BA482
6017▲	4822 130 30621	1N4148
6219▲	4822 130 31983	BAT85
6254	4822 130 34233	BZX79-C5V1
6280▲	4822 130 30621	1N4148
6281▲	4822 130 30621	1N4148
6282▲	4822 130 30621	1N4148
6284▲	4822 130 30621	1N4148
6286▲	4822 130 30621	1N4148
6287▲	4822 130 30621	1N4148
6288▲	4822 130 30621	1N4148
6305	4822 130 34174	BZX79-C4V7
6306	4822 130 34189	BAV20
6318	4822 130 34174	BZX79-C4V7
6319	4822 130 34189	BAV20
6327	4822 130 34174	BZX79-C4V7
6328	4822 130 34189	BAV20
6350	4822 130 80928	BZX79-C30
6412▲	4822 130 30621	1N4148
6415▲	4822 130 30621	1N4148
6416	4822 130 42488	BYD33D
6417▲	4822 130 34173	BZX79-C5V6
6418▲	4822 130 30621	1N4148
6420	5322 130 34563	BZX79-C2V7
6423	4822 130 34382	BZX79-C8V2
6425▲	4822 130 31983	BAT85
6426▲	4822 130 31983	BAT85
6427▲	4822 130 31983	BAT85
6428	4822 130 34382	BZX79-C8V2
6437	4822 130 34281	BZX79-C15
6438	4822 130 34281	BZX79-C15
6439▲	4822 130 31631	BYV10-20
6441▲	4822 130 30621	1N4148
6442	4822 130 42488	BYD33D
6443	4822 130 42488	BYD33D
6446	5322 130 31559	BY448
6447	4822 130 42488	BYD33D
6447	5322 130 31938	BYV27-200
6448▲	4822 130 41275	BY228/20
6449	4822 130 42489	BYD33G
6450	4822 130 42488	BYD33D
6451	4822 130 42488	BYD33D
6452	4822 130 42489	BYD33G
6453	5322 130 31559	BY448
6455	4822 130 34382	BZX79-C8V2
6458▲	4822 130 30621	1N4148
6470	4822 130 42489	BYD33G
6471▲	4822 130 31983	BAT85
6473▲	4822 130 31983	BAT85
6481	5322 130 31574	BZT03-C15
6512▲	4822 130 30621	1N4148
6513▲	4822 130 30621	1N4148
6518	4822 130 34174	BZX79-C4V7
6519	4822 130 34174	BZX79-C4V7
6519	5322 130 31574	BZT03-C15
6520	4822 130 42606	BYD33J
6521▲	4822 130 34499	BZX79-C20
6526▲	4822 130 32896	BYD33M
6527	4822 130 42606	BYD33J
6531▲	4822 130 33531	BY229F-600
6541	4822 130 81104	MA689
6562	4822 130 34174	BZX79-C4V7
6565	5322 130 31504	BZX79-C3V3
6606▲	4822 130 34173	BZX79-C5V6
6607▲	4822 130 30621	1N4148
6618	4822 130 34195	BZX79-B13
6618	4822 130 34197	BZX79-B12
6632▲	4822 130 30621	1N4148
6633	4822 130 34174	BZX79-C4V7
6648	4822 130 34142	BZX79-C33
6648	4822 130 82037	HZT33
6690▲	4822 130 30621	1N4148
6715▲	4822 130 30621	1N4148

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7000	4822 209 10892	LA7910
7109	4822 130 40938	BC548
7212▲	4822 130 44197	BC558B
7213▲	4822 130 44197	BC558B
7214	4822 130 40941	BC558
7215	4822 130 40938	BC548
7216	4822 130 40938	BC548
7217	4822 130 40938	BC548
7218	5322 209 86283	L7808CP
7225	4822 209 33398	TDA8362E/N2
7225	4822 209 33479	TDA8361E/N3
7225	4822 209 33916	TDA8361E/N4
7245	4822 209 32359	TDA8395/N1
7255	4822 209 31714	TDA4661/V2
7270	4822 130 40938	BC548
7278	4822 130 41376	BF494B
7305	4822 130 41773	BF869
7306	4822 130 41376	BF494B
7318	4822 130 41773	BF869
7319	4822 130 41376	BF494B
7325	4822 130 40941	BC558
7327	4822 130 41773	BF869
7328	4822 130 41376	BF494B
7332	4822 130 40941	BC558
7400	4822 209 33321	TDA3654/N3
7423	4822 130 40938	BC548
7430	4822 130 40938	BC548
7439	5322 130 44647	BC368
7440	4822 130 42159	BF819
7445	4822 130 63569	BU1508DX
7446	4822 130 41646	BF423
7480	4822 130 40824	BD136
7481	4822 130 40938	BC548
7513▲	4822 130 63499	STH12N60FI
7513	4822 130 63698	STH8NA60FI
7563	4822 130 40941	BC558
7600	4822 209 33773	PCA84C844/163 SA+ V0.9
7600	4822 209 33774	P83C055-CV 6123NB S12 V3.1
7634	4822 130 40937	BC548B
7635	4822 130 40937	BC548B
7636	4822 130 40938	BC548
7637	4822 130 40938	BC548
7638	4822 130 40938	BC548
7647	4822 130 41594	PH2369
7684	4822 130 40938	BC548
7685	4822 130 40938	BC548
7686	4822 130 40938	BC548
7710▲	4822 209 52316	ST24C04B1
7730	4822 209 10257	HEF4040BP
7731	4822 209 10248	HEF4013BP
7733▲	4822 130 44196	BC548C
7734	4822 130 40938	BC548

Power supply control panel 29" [AA]

Various

	4822 212 31771	Power supply cont. panel 29" 90-276V
	4822 212 31774	Power supply cont. panel 29" 140-276V
	3139 138 64170	Power supply cont. panel 29" -/93 (local sourcing)
	4822 265 31099	6 pins blue snap connector

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2506	5322 121 10472	47µF 25
2507	4822 121 43526	47nF 5% 250V
2508	4822 121 43187	27nF 5% 250V
2510	5322 122 32334	220pF 10% 100V
2511	5322 122 32334	220pF 10% 100V
2512	4822 121 51319	1µF 10% 63V
2514	4822 126 13097	560pF 10% 50V
2515	4822 126 13097	560pF 10% 50V
2516	4822 124 80371	4.7µF 20% 50V
2517	4822 126 11157	470pF 10% 500V

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3508	4822 116 52249	1k8 5% 0.5W
3510	4822 116 52283	4k7 5% 0.5W
3511	4822 116 52264	27k 5% 0.5W
3512	4822 100 20166	10k 30% lin 0.1W
3515	4822 116 52175	100Ω 5% 0.5W
3516▲	4822 050 22701	270Ω 1% 0.6W
3517▲	4822 052 10159	15Ω 5% 0.33W
3517▲	4822 052 10339	33Ω 5% 0.33W
3518▲	4822 052 10151	150Ω 5% 0.33W
3523	4822 116 52278	390k 5% 0.5W
3524	4822 050 11002	1k 1% 0.4W
3524	4822 116 52207	1k2 5% 0.5W

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6509	4822 130 34174	BZX79-C4V7
6510	4822 130 31024	BZX79-B18
6511▲	4822 130 30621	1N4148
6514	4822 130 34189	BAV20

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7510	4822 209 33432	UC3842BN

Mains input panel 29" [AA]

Various

	4822 212 31769	Mains input panel 29" 90-276V
	4822 212 31773	Mains input panel 29" 140-276V
▲	4822 276 13431	Mains switch
▲	4822 256 30496	Fuse holder
▲	4822 267 31359	2 pins header
▲	4822 265 20441	3 pins header
	4822 410 63517	Mains knob 29"
	4822 404 31357	Bracket for mains input panel
1500	4822 070 34002	Fuse 4 AT

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2500▲	4822 121 70285	470nF 10% 250V
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 121 42059	100nF 10% 400V
2504	4822 126 12793	2.2nF 10% 2KV
2509	4822 124 22633	22µF 20% 35V
2527▲	4822 122 33665	3.3nF 20% 125V
2528▲	4822 122 33665	3.3nF 20% 125V

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3501	4822 116 40247	18Ω 270V
3502	4822 111 20403	470Ω 10%
3503▲	4822 113 80603	1.5Ω 10% 7W
3504▲	4822 053 21475	4M7 5% 0.5W
3505▲	4822 113 80603	1.5Ω 10% 7W
3506▲	4822 053 11273	27k 5% 2W
3507	4822 116 52251	18k 5% 0.5W
3509	4822 116 40247	18Ω 270V

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5500	4822 157 71408	28mH mains filter

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6500	4822 130 80928	BZX79-C30
6501	4822 130 80928	BZX79-C30
6502▲	4822 130 80858	1N5062
6503▲	4822 130 80858	1N5062
6504▲	4822 130 80858	1N5062
6505▲	4822 130 80858	1N5062
6506	4822 130 34379	BZX79-C27
6510	4822 130 82158	D3SBA60-4003

Dynamic S-correction panel [AA]

Various

	3139 138 57190	Dynamic S-corr. panel -/93 (local sourcing)
	4822 265 20441	3 pins header

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▲2490	4822 121 42442	260nF 5% 200V

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▲5490	4822 140 10509	Bridge coil 250µH

CRT panel 29" [EE]

Various

	4822 212 31772	CRT panel 29" NN
	3139 138 64180	CRT panel 29" -/93 (local sourcing)
▲	4822 255 70254	Holder valve
	4822 265 30934	5 pins header
	4822 265 31153	5 pins header black

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2302	4822 126 12643	22nF 20% 50V
2304	4822 126 13097	560pF 10% 50V
2306	4822 124 80495	4.7µF 20%
2317	4822 126 13097	560pF 10% 50V
2330	4822 126 13097	560pF 10% 50V
2340	4822 126 12833	4.7nF 20% 2KV
2350	5322 122 32491	1nF 20% 100V
2351	4822 121 41673	220nF 10% 100V

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3300▲	4822 052 10101	100Ω 5% 0.33W
3301	4822 116 52265	270k 5% 0.5W
3302	4822 053 12123	12k 5% 3W
3303	4822 050 21502	1k5 1% 0.6W
3304	4822 116 52175	100Ω 5% 0.5W
3305	4822 116 52215	220Ω 5% 0.5W
3306	4822 116 52246	1k6 5% 0.5W
3307	5322 100 11542	4k7 30% lin 0.1W
3308	4822 116 52175	100Ω 5% 0.5W
3309	4822 116 52213	180Ω 5% 0.5W
3310	4822 116 52289	5k6 5% 0.5W
3311	4822 116 52289	5k6 5% 0.5W
3312	4822 116 52289	5k6 5% 0.5W
3313	5322 100 11541	2k2 30% lin 0.1W
3314	5322 100 11541	2k2 30% lin 0.1W
3315	4822 053 12123	12k 5% 3W
3316	4822 050 21502	1k5 1% 0.6W
3317	4822 116 52175	100Ω 5% 0.5W
3318	4822 116 52215	220Ω 5% 0.5W
3319	4822 116 52246	1k6 5% 0.5W
3320	5322 100 11542	4k7 30% lin 0.1W
3321	4822 116 52175	100Ω 5% 0.5W
3322	4822 116 52222	390Ω 5% 0.5W
3323	4822 116 52213	180Ω 5% 0.5W
3324	4822 116 52243	1k5 5% 0.5W
3325	4822 116 52283	4k7 5% 0.5W
3326	4822 116 52217	270Ω 5% 0.5W
3327	4822 116 52228	680Ω 5% 0.5W
3328	4822 053 12123	12k 5% 3W
3329	4822 050 21502	1k5 1% 0.6W
3330	4822 116 52175	100Ω 5% 0.5W
3331	4822 116 52213	180Ω 5% 0.5W
3332	4822 116 52215	220Ω 5% 0.5W
3333	4822 116 52246	1k6 5% 0.5W
3334	5322 100 11542	4k7 30% lin 0.1W
3335	4822 116 52175	100Ω 5% 0.5W
3336	4822 050 21502	1k5 1% 0.6W
3337	4822 050 21502	1k5 1% 0.6W
3344▲	4822 052 10188	1Ω8 5% 0.33W
3345▲	4822 052 10278	2Ω7 5% 0.33W
3350	4822 116 52234	100k 5% 0.5W

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5338	4822 156 20966	47 µH

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6305	4822 130 34174	BZX79-C4V7
6306	4822 130 34189	BAV20
6318	4822 130 34174	BZX79-C4V7
6319	4822 130 34189	BAV20
6327	4822 130 34174	BZX79-C4V7
6328	4822 130 34189	BAV20
6350	4822 130 80928	BZX79-C30

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7305	4822 130 41773	BF869
7306	4822 130 41376	BF494B
7318	4822 130 41773	BF869
7319	4822 130 41376	BF494B
7325	4822 130 40941	BC558
7327	4822 130 41773	BF869
7328	4822 130 41376	BF494B